

NEWS SUMMARY

GENERAL

Russia arrests U.S. citizen

Soviet police have arrested Mr. F. Jay Crawford, an Alabama businessman, on smuggling charges which could bring up to ten years in a labour camp. The U.S. Embassy said it had lodged a complaint about the treatment of Mr. Crawford, an International Harvester Company representative, who was hauled from his car at traffic lights in Moscow.

The arrest came hours after the official newspaper *Izvestia* published spy charges against an American woman diplomat barred from the country last July. Last month two Soviet United Nations officials were detained in the U.S. on spying charges.

Israeli troops leave Lebanon

Israeli troops withdrew from Southern Lebanon and handed over control of the border zone to the local Christian militia. But in the north of the country, 45 people, including Mr. Tony Frangieh, the MP son of former President Sheikhan Frangieh, died in bitter fighting between Phalangist and Right-wing forces. Back and Page 3

Lords defeat on devolution

The Government suffered a serious defeat in the Lords last night on Scottish devolution legislation. Peers approved by 99-72 a Conservative amendment which respects the controversy over whether Scottish MPs at Westminster should continue to vote on Bills affecting England when devolution becomes law.

The amendment would hold up a third reading of a Bill on English matters for 14 days if Scottish MPs were decisive in securing its majority. The Tories acted to get a debate on the issue, prevented earlier by the guillotine, when the Scotland Bill returns to the Commons.

RUC inquiry details soon

Mr. Mason, the Ulster Secretary, is expected to announce the format of a judicial inquiry into methods used by the Royal Ulster Constabulary at Castlereagh interrogation centre in the next few days. Amnesty International reiterated that its investigators found that the RUC had used "brutal and inhuman treatment" against detainees during emergency legislation during 1972-77.

Exams stolen

Children were unable to take the Associated Examining Board's Ordinary level paper in sociology yesterday because the question paper was stolen from a North London comprehensive last week. University of London students were also told that question papers were available in their schools.

Sick men freed

Two men, jailed for corruption in connection with British Steel Corporation contracts, were freed by the Appeal Court Lord Justice Geoffrey Lane said that Mr. Eric White, 69, and Mr. Robert Alfred Smith, 64, were both desperately ill and should be released. It would be "gratuitous cruelty" to make them serve out their sentences.

Easy rider

Children accompanied by adults will be able to travel almost anywhere by Sunday train for only 40p from Sunday in British Rail's latest cut-price move. Page 6

Briefly

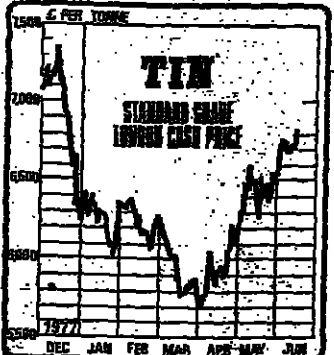
Amateur rugby player John Billingham was given a nine-month suspended prison sentence at Newport Crown Court for inflicting grievous bodily harm by breaking an opponent's jaw during a match.

Guardman was bucked off his horse while securing the Queen and President of Romania. World Trade News, Page 4.

BUSINESS

Tin puts on £110; Equities up 2.4

TIN reached its highest level since last December on the LME following the closure of the Capper Pass smelter in Hull.



Because of an industrial dispute, Standard grade cash closed £110 up at £6,810 a tonne.

● **EQUITIES** recorded a 2.4 gain on the FT ordinary share index to 414.6 in spite of a continuing low level of trade. Gold Mines put on 2.7 to 160.9.

● **GILTS** faded with sentiment uncertain ahead of the May trade figures, and the Government Securities index closed 0.01 down at 70.78.

● **STERLING** lost 40 points to £18340, its trade-weighted index easing to 61.4 (61.5). The yen closed at ¥216.75 against the dollar after reaching a record level in Tokyo. The dollar's depreciation remained unchanged at 5.8 per cent.

● **GOLD** closed \$11 up at \$182 in London and in New York the Comex June settlement price was \$2,600. A \$183.70.

● **WALL STREET** closed 8.29 up at 856.98.

● **U.S. Treasury bill** rates were: three, 6.618 per cent (6.628); and six, 7.121 per cent (7.095).

● **GOVERNOR** of the Bank of England, Mr. Gordon Richardson, speaking at a foreign bankers' meeting in Bern, has warned against the risks of a rekindling of inflation, and urged a "reasonable" rate of real growth. Back Page

● **PRICE COMMISSION** is to investigate the prices of car spare parts, and may make long-term recommendations about prices. Back Page. The Office of Fair Trading is thought to be considering a third attempt to force the car companies to common pricing agreement in the Restrictive Practices Court. Page 6

● **LAURENCE**, under pressure from principal Western creditors, including the IMF, World Bank and the EEC, has agreed to place its public finances under outside supervision as a precondition to the negotiation of a \$1bn aid package. Back Page

● **BARCLAYS BANK** and Bank of Scotland customers will pay higher interest rates for their loans following the announcement that the personal loan rate and the credit card loan rate are to be increased. Page 5

● **CHRYSLER** shop stewards at the Linwood car plant have rejected management proposals to cut wages and intensify the work of the workforce, which have been blamed for falling productivity. Page 8

● **THORN** group has agreed with Japan Victor to sell 20,000 of its video tape recorders a year on the U.K. market. Back Page

● **BRITISH LEYLAND** chairman, Mr. Michael Edwards has put forward plans for a new incentive scheme in an attempt to raise the car division's output levels. Back Page

● **OCCIDENTAL OIL** has made a counter-bid for Husky Oil of Calgary, against a nine Canadian interests represented by the Canadian national oil company, Petro-Canada. Page 20

● **GEI INTERNATIONAL** made a 3 per cent jump in pre-tax profit for the year to March 31 on turnover up 26 per cent to £50.48m. Page 23

CHIEF PRICE CHANGES YESTERDAY

(Prices in pence unless otherwise indicated)

RISERS		FALLS	
Albright and Wilson	172 + 15	Heron Motor	144 - 4
Assed Newspapers	163 + 7	Johnson Matthey	428 - 7
Assed Paper	162 + 4	McNeill Group	53 - 5
Bakerley Hambro	115 + 6	Pegler-Hattersley	160 - 8
Baxter & Co.	115 + 4		
Churchbury Ests.	288 + 11		
Comerford	71 + 3		
Daily Mail A	288 + 10		
CUS A	280 + 6		
Guinness (A)	216 + 6		
Hall (Quintons)	122 + 5		
Edward Williams	122 + 5		
Hiscocks	75 + 4		
Invest Trust Corp.	278 + 23		
Johnson Cleaners	92 + 5		
K Shoes	71 + 4		
Lindsay and Williams	86 + 5		
Midland Bank	365 + 5		

ICI gives warning of plant closures in 18-month dispute

BY KEVIN DONE and NICK GARNETT

Imperial Chemical Industries told union leaders yesterday that it will have to start shutting down plants at its most important UK manufacturing site which is facing "its most serious crisis since it started operations."

Plant closures at Wilton, Tees, the closure threat seriously, say chemicals site—will start next no difference to the company's their raw material, such as industrial dispute. ICI has written to 8,000 weekly turnover. They claim that the staff employed at the site saying problem is rooted solely in ICI's that the dispute makes inability to compete with other possible the commissioning of companies on pay.

ICI says that it has been losing survival depends. The company is engaged on its biggest investment programme, Mr. Brian Jenkins, personnel and on the site involving the construction of plant worth £480m. If the dispute is not resolved quickly, the effects of Wilton plant closures will be felt soon by a wide range of ICI's customers including the chemical, automotive, plastics processing, construction and textiles industries.

The shutting down of major chemical plants is a complex and sometimes difficult operation and re-commissioning can be time-consuming. The company is facing a grave shortage of trained instrument artificers, the men who look after control room instrumentation. The dispute is over a retraining programme, to which the company says, unions will not agree until demands are met for more work.

Union officials, who are taking Mr. Jenkins says that the first closure next week will be one of the company's ethylene plants at Wilton. This probably will close on Monday. Ethylene plants are at the heart of a petrochemicals complex. When this 200,000-tonnes-a-year plant closes the effect will be "shattering".

ICI strategy attacked Page 8

Post Office pension fund in £85m three-way deal

BY MICHAEL BLANDEN

THE Post-Office pension fund is to take over one of the leading investment trust groups in a major three-way deal which will provide Barclays Bank with an injection of some £85m of new capital.

The scheme worked out by merchant bankers Samuel Montagu & Co. enables the pension fund, as advisers to the fund, to avoid the kind of battles which followed recent bids by the National Coal Board and railway pension funds for major stakes in the investment trust group.

Under the surprise deal announced yesterday, Barclays will offer its own shares, worth about £2.6m at a price of 100p, to the Post Office staff pension fund. The investment trust group, The Post Office Investment Trust Corporation, will offer the trust shares at nearly 395p each, with a cash alternative of 284p.

The bank has already agreed that, if the bid goes through, it will then sell the investment trust shares to the Post Office staff pension fund for £85m in cash, which it will use to support further expansion of its own business.

The move is the latest in the recent round of acquisitions of investment trusts by the Post Office pension fund, which is pecked to have £1m a day to invest, the opportunity to acquire a major portfolio of shares without the problems of making a contested bid.

The announcement was received well in the stock market. Barclays shares slipped initially to 325p but recovered to end with a gain of 3p at 335p.

Investment Trust Corporation shares, which announced a bid approach at the end of last month, jumped by 25p to 278p.

The bid involves Barclays offering 88 of its own ordinary stock units or £264 in cash for every 100 of the TTC 25p shares. The bank is also to offer 100p in cash for each of the investment trust's 3.15 per cent cumulative preference shares.

The cash offer is being underwritten by Cazenove and Pender and Boyle at a price of 300p for each of the Barclays shares.

Mr. Deryk Vander Weyer, a vice-chairman of Barclays, said yesterday that the bank was not the chance to take shares worth

rather more than the net asset value of the trust instead of cash, and thus to enjoy the benefits of a capital gains tax roll-over relief.

Details, Page 24
Lex, Back Page

ways pension funds for major trusts. It allows Barclays to raise a large slice of new capital at a substantially lower discount from the market price of its shares than would be possible in a rights issue.

At the same time, the bank will be able to raise its dividend by a planned 20 per cent for the current year.

The deal also offers the shareholders in the investment trust the chance to take shares worth

PAY—'WE'LL LISTEN'

The Government will put forward its pay proposals for next year after the round of trade union conferences has ended in July. Mr. James Callaghan told the Commons yesterday: "We shall wait and listen to what the trade union conferences have to say."

No figures have yet been mentioned in the informal talks that have been going on between Ministers and union leaders. But Mr. Callaghan has indicated that he would like to reach an understanding with the TUC that would keep wage settlements well below this year's 10 per cent level.

Skirmishing with Mrs. Margaret Thatcher, the Conservative leader, in advance of today's debate on Mr. Denis Healey, the Prime Minister reassured the Government's determination to carry through policies that would keep inflation down.

"We intend to follow a sound financial policy on all these matters," Mr. Callaghan declared.

Liberals and Scottish Nationalist MPs met today to decide their tactics in tonight's Commons vote on a Tory motion to cut the Chancellor's salary by half.

The Liberals are expected to abstain though Mr. David Steel may find it difficult to persuade one or two of his MPs into line.

A full Labour muster, with Liberal abstentions, would give the Government a majority of four over the other Opposition parties.

Parliament, Page 8

Surcharge 'will not hit prices'

BY PAULINE CLARK, LABOUR STAFF

MR. DENIS HEALEY, Chancellor of the Exchequer, denied yesterday that increased National Insurance charges on employers would be reflected in higher prices for goods and services.

Mr. Healey argued that the Government would be relying heavily on trade union co-operation in the management of the economy after July.

So far, Mr. Healey seemed well-satisfied with such a policy, which he suggested, had been tried and tested since 1972, when the Government decided not to split the political and industrial wings of the Labour movement.

Keith Gooding writes: The Confederation of British Industry yesterday stood on its assertion that prices will go up at least 1 1/2 per cent and unemployment rise by about 100,000 following the increase in the employers' National Insurance surcharge.

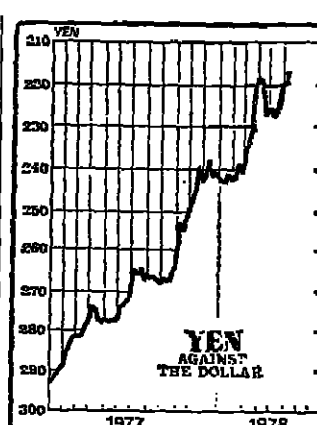
The Confederation also pointed out that as recently as April 11 in his budget speech, the Chancellor had apparently turned his back on an increase in the surcharge.

"I have been asked to consider an increase in the National Insurance surcharge. The share of employer social security contributions and payroll taxes in total revenue is a good deal lower in Britain than in most other countries of the European Community."

"But I do not believe it would be right to increase it so soon after it has been introduced and at a time when unemployment is our major problem."

"It would increase industrial costs at a time when it is essential to improve our competitiveness and it would ultimately be largely passed on in higher prices at a time when the debt against inflation is at a crucial stage."

Unemployment had fallen



\$ slips against the yen

BY MICHAEL BLANDEN

THE DOLLAR slumped to new low levels against the Japanese yen yesterday, but improved against other leading currencies in European exchange markets.

The pressure followed heavy selling of the dollar on the Tokyo exchange market, where at one point it dropped to ¥216.2. The decline was reflected in London dealings where the dollar ended at ¥216.75 against ¥217.7 on the previous day.

The fall took the U.S. currency below the previous low point reached early in April, and means that the yen has now risen by over 40 per cent from its Smithsonian parity of 308 to the dollar and by over 25 per cent in the past year.

The dollar was helped in European markets, however, by a statement in Zurich by Mr. G. William Miller, the chairman of the Federal Reserve Board.

He affirmed the commitment of the U.S. to maintaining a sound and stable dollar, and argued that the exchange markets should take a positive view of the prospects of a declining trend in U.S. inflation and the current account deficit by the end of this year.

Charles Smith writes from Tokyo: The rise in the yen is taken to reflect continuing concern about the U.S. payments deficit and Japan's surplus.

It has also occurred against a background of widespread speculation that the exchange rate could reach Yen 200 to the dollar in the not too distant future, without seriously straining Japan's capacity to compete in world markets.

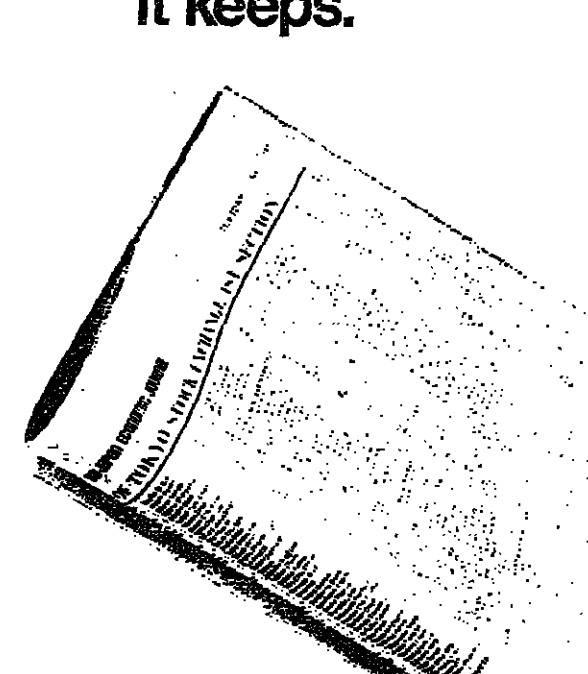
The Mitsubishi Research Institute forecast Japan's visible trade surplus for the current fiscal year at \$22.7bn (up on last year's level of \$20.42bn).

This was linked to a projection of relatively small growth for the economy itself—by 3.2 per cent during the year, as against the Government target of 7 per cent.

In New York

	June 13	Previous
Spot	\$1.8350-8340	\$1.8200-8360
1 month	0.82-0.74 ds	0.73-0.71 ds
3 months	1.82-1.74 ds	1.82-1.71 ds
12 months	5.705-5.50 ds	5.702-5.50 ds

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EUROPEAN NEWS

OECD Ministers lay ground for summit in Bonn

By Robert Mauthner

PARIS, June 13.

THE FOREIGN and Finance Ministers of the 24-nation OECD will gather here tomorrow for their two-day annual meeting, which, it is hoped, will lay the groundwork for an agreement on a concerted growth strategy at the Western summit in Bonn next month.

Though high officials from the member countries failed to agree at the end of last month on detailed proposals specifying the amount of stimulus to domestic demand required in six leading Western economies, the principle of differentiated action has been generally approved.

Thus it is widely accepted that the stronger economies, such as West Germany and Japan, would have to give a bigger stimulus to their economies than the so-called "convergence" countries, like the UK, France and Italy, in order to achieve the OECD's new growth target of 4.5 per cent by the middle of next year.

So far, the West Germans and Japanese have rejected any attempt to impose precise targets on them and the Bonn Government, in particular, has given no indication if and when it is prepared to adopt expansionary measures.

The general assumption here is that the West Germans do not want to give anything away in advance of the Bonn summit, but the OECD believes that this week's ministerial meeting will bring some clarification of their intentions.

The need for joint action by the Western economies has been underlined by the Secretary's latest pessimistic forecasts, which foresee that the area as a whole will grow by no more than 3.5 per cent at the most in 1978.

Austria payments balance shows sharp improvement

By Paul Lendvai

VIENNA, June 13.

THE AUSTRIAN balance of payments showed a striking improvement in January-April, with the deficit on current account falling by Sch 6.1bn (£217m) to Sch 7.3bn, compared to the same period last year.

The so-called basic balance of payments was in balance, as against a Sch 11.1bn shortfall in the same period last year.

Excluding the end-of-year swap transactions between the Central Bank and the credit institutes, official foreign exchange reserves on a seasonally-adjusted basis were up by Sch 7.2bn.

The improvement was due to a 13.5 per cent fall in the visible trade deficit to Sch 18.8bn. Surplus on services account was up by Sch 2.3bn to Sch 10.1bn, with foreign exchange intake from tourism up by 14.7 per cent to Sch 17.7bn, and expenditures by Austrians abroad by 7.6 per cent to Sch 7.2bn.

Thus the net intake from tourism was up from Sch 8.7bn in January-April 1977 to Sch 10.5bn during the same period this year.

Austrian bankers are increasingly unhappy about the restrictions on their credit operations abroad.

Dr. Helmut Klaus, director general and chairman of the Board of Genossenschaftliche Zentralbank, the central institute of the Austrian farmers' co-operative, said that the 7 per cent limit placed on expansion of foreign business this year has had an adverse impact not only on the banks as such, but also on their contacts with the international banking community.

The restrictions came into force at the end of January this year following an almost 40 per cent expansion in the growth of foreign assets held by Austrian banks in 1977.

In the opinion of Dr. Klaus, however, the time has come to ease them and to increase the permissible growth rate in foreign assets to 20 per cent, taking as before the expected repayments this year as a base.

Greek-Soviet links grow

By Our Own Correspondent

ATHENS, June 13.

MR. GEORGE RALLIS, the Greek Foreign Minister, is to pay an official visit to the Soviet Union early in September.

The visit, probably between September 2 and 6, will be the first by a Greek Foreign Minister since the Second World War and will climax a series of overtures made by the Soviet Union to Greece in recent months.

While in Moscow, Mr. Rallis will sign consular and cultural agreements. Under the consular agreement, a Greek consulate will be opened in Odessa and a Soviet one in Salonika.

Mr. Rallis will have talks with his Soviet counterpart, Mr. Andrei Gromyko, and high-ranking officials of the Soviet Foreign Ministry on bilateral matters, as well as international issues. Mr. Gromyko is expected to return to the visit.

A government official today claimed that Greece had accepted a Soviet proposal to sign a friendship and co-operation agreement based on the principles of the Helsinki declaration.

He said a joint communiqué will be issued at the end of Mr. Rallis' visit which may also touch on political aspects regarding the policies of the two countries on various bilateral and international issues.

The post-election industrial strategy of the Government decrees that lame ducks can only qualify for help if they present a coherent recovery programme and can prove competent management. It appears that the Government is not satisfied about the level of certain management and is debating whether the 1977 plan can be improved and extended.

The unions think that a new round of job-cutting is on the way. In fact, the 10,000 jobs so far lost have disappeared mainly through retiring workers at the

Nine urged to act together over arms

By Richard Evans

STRASSBOURG, June 13.

MUCH GREATER collaboration on the production of armaments among the countries of the European Community was urged by Mr. Geoffrey Rippon, leader of the Conservative group, here yesterday, in order to prevent Europe from becoming dominated technologically by the United States.

This would give the benefit of large-scale production which the Americans and Russians already possessed, and would allow Europe to develop its own technology, which was now in danger of being swamped.

Viscount Etienne Davignon, Commissioner for Industrial Affairs, gave a non-committal response to demands for changes in the Community's defence policy, partly because of his determination to avoid offending national sensitivities. He stressed that separate states retained their sovereignty over national defence policies.

The Parliament will vote today on the resolution calling on the Commission to submit a programme for the development of conventional armaments within the common industrial policy.

Mr. Rippon argued that opposition to a programme of greater collaboration would be a vote for the future serfdom of Europe, but a vote in favour would demonstrate an understanding that military and economic security went hand in hand, and that arms production was an important means of fighting unemployment and increasing growth.

At present, wealth reserves were being wasted on a colossal scale by the countries of the Community duplicated each other's efforts.

Part of the difficulty is that the previous government, which drew up the 1978 Budget, took account in its calculations of plans to reduce expenditure which have not yet been implemented. This has meant that the new Government has had less room to introduce new policies within the limits set by the Budget.

The planned reductions were in the area of personnel costs, social security provisions for civil servants and family allowances.

Spending has been held back as much as possible so as not to undermine the impact of the major programme of spending cuts which the Government hopes to announce later this week, Mr. Davignon said in a note to Parliament.

The proposed cuts, which are expected to reduce spending by around £1.1bn over three years will take effect from 1979.

The higher than expected deficit has prompted the Finance Minister to cut overall departmental spending by £1.2bn (£80m). Both revenue and spending are higher under the latest forecast but spending has risen more quickly.

Spending is now estimated at £1.73bn and revenues at £1.44bn. The Budget deficit of £1.34bn produces a funding requirement of £1.34bn.

Mr. Gundlach argued that in two respects the price fixing had marked a considerable step forward—the Community had pushed ahead with moderate farm price policy that offered a better chance of bringing markets into balance; and it had also adopted a package of development measures for the less well off regions.

"We must now aim to consolidate and to push ahead on both fronts," he declared.

Two things were clear from the negotiations. The search for an automatic system for the phasing out of monetary compensatory amounts (MCAs) had failed and the Community must try to confine decisions on green to the years prior to 1980.

He argued that if this was not done, the fixing of common prices would be preempted by national decisions as had almost happened this year.

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Free Democrats plan Hesse poll strategy

By Jonathan Carr

BADLY-SHAKEN by recent electoral setbacks, the West German Free Democratic Party (FDP) is facing a provincial congress next weekend whose outcome will have important repercussions nationally.

The FDP in Hesse is meeting to plan strategy for its campaign for the state election on October 8. If it adopts the wrong course it is likely to be forced out of the state parliament in October, the position of the FDP leader, Herr Hans Dietrich Genscher, will be endangered, and the legislative process in the

federal capital, Bonn, may grind to a halt.

Herr Genscher has brought massive pressure to bear on the Hesse party to come out firmly in favour of continuing its coalition with the local Social Democratic Party (SPD). But some in the opposition Christian Democrats (CDU) and still others want to leave the whole matter open.

Herr Genscher fears that any move against a renewed SPD-FDP alliance at this stage would estrange voters and reduce FDP support below the 5 per cent needed for representation in Parliament. At the last Hesse elections the FDP gained only 7.4 per cent, the SPD 43.2 per cent, and the CDU 47.3 per cent.

The FDP has just been driven out of local parliaments in elections in Lower Saxony and Hamburg. It has interpreted its own failure there as due to an inability to put its own liberal message across clearly enough, combined with the rise of new so-called "green parties" of environmentalists which have stolen support away from the main political groups.

Now there is the real threat of another party urging early tax reform, adding itself to environmentalists for the Hesse election. An FDP without a clear identification in the eyes of the voters would be the main loser.

If the FDP vanished from the Hesse parliament and the CDU came to power there, the SPD-FDP coalition in Bonn under Chancellor Helmut Schmidt would become desperately hard.

This is because with a Hesse victory the CDU and its Bavarian ally, the Christian Social Union

(CSU), would together have a two-thirds majority in the Bundestag, the federal upper house which groups representatives of the states. That would enable the CDU-CSU to block all Government-initiated legislation if it wished.

Even if the FDP comes out in favour of a further alliance with the SPD in Hesse, it will still have an uphill struggle to gain a clear profile before the electorate on issues such as tax, environmental policy and the economy. Most observers feel its survival as a parliamentary force in Hesse will be touch and go.

Holland's deficit worse than expected

By Charles Batchelor

AMSTERDAM, June 13.

HOLLAND'S BUDGET deficit in 1978 will be higher than was originally forecast, Mr. Frans Andriessen, the Finance Minister, has reported. The Government's financing requirement will be £1.13bn (£6.1bn)—£1.1bn more than forecast in the Budget proposals announced last September.

This means the deficit will be even more than the 5.1 per cent of gross domestic product expected. The Government's long-term target is to bring it down to 4 per cent.

Part of the difficulty is that the previous government, which drew up the 1978 Budget, took account in its calculations of plans to reduce expenditure which have not yet been implemented. This has meant that the new Government has had less room to introduce new policies within the limits set by the Budget.

The planned reductions were in the area of personnel costs, social security provisions for civil servants and family allowances.

Spending has been held back as much as possible so as not to undermine the impact of the major programme of spending cuts which the Government hopes to announce later this week, Mr. Andriessen said in a note to Parliament.

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Agreement on new motorway to connect Hamburg and W. Berlin

By Leslie Collitt

BERLIN, June 13.

EAST AND West Germany have agreed on the construction of a new autobahn road, all date from before the last war, the new autobahn would provide the quickest trip between West Berlin and West Germany's largest city, Hamburg.

Now the journey is a tortuous 44 hours on a rutted East German transit road that snakes through villages and towns to the West German border.

The shortest autobahn link between West Berlin and West Germany is the 110-mile stretch to Helmstedt. Work is now nearing completion on the renewal of Helmstedt-Berlin autobahn, which is costing West Germany DM400m.

Herr Gaus said after his meeting with the East German leader that both Herr Honecker and

Chancellor Helmut Schmidt would like to confer in person but that they first want the "climate" of their relations to improve.

The three Western allies in Berlin have raised objections to any visit by Chancellor Schmidt to East Berlin, noting that it would mark a final acceptance by West Germany of East Berlin's incorporation into East Germany.

Reuter adds from Wiesbaden, West Germany: The last stretch of north-south European motorway linking the Mediterranean and the Baltic was officially opened here today by Queen Margrethe of Denmark and West German President Walter Scheel. Motorists can now drive 1,250 miles from Sicily to Apenrade in Jutland on an unbroken

motorway.

The remaining amount is expected to be released as a lump sum by a consortium of leading U.S. banks as a result of recent talks in New York with Dr. Vitor Constantino, the Portuguese Minister of Finance, and representatives of leading Portuguese banks.

The latest borrowing is in addition to the OECD-backed multi-year facility of \$750m already made available as a result of the agreement with the International Monetary Fund (IMF). The new borrowing will be used by the government to restructure the country's short-term debt of \$2.4bn, and to finance Portugal's balance of payments deficit of \$1.5bn.

● Lisbon's usually joyous annual holiday in commemoration of St. Anthony, was overshadowed today by a solemn procession through the capital at the funeral of an 18-year-old student killed in a demonstration here last Saturday.

Over 3,000 people walked silently with raised clenched fists.

● Portuguese Prime Minister Mario Soares on a visit to Bonn said yesterday his country would open formal negotiations before the end of this year on admission to the European Common Market, Reuter reports from Bonn.

Ships may be monitored from January

By Lynton McLean

COUNTRIES operating flags of convenience will be monitored from January 1 next year if this week's draft declaration from EEC Transport Ministers is implemented, as expected by November, Mr. Stanley Clinton Davis, EEC Transport Minister, said in London yesterday.

The provision for monitoring cargoes and flag carriers was included in the general statement from Brussels on action to counter the growing domination of world shipping by "state trading countries." Britain had called for specific action against the Soviet Union in particular. This was turned down after protests from France.

Mr. Clinton Davis said he was moderately well satisfied with the outcome, which had gone further than the Government expected. He regarded it as the first of a number of steps the EEC would take to counter the Soviet threat of under-cutting Western shippers' prices and expanding Soviet fleets.

Sanctions to be considered by EEC Transport Ministers include the licensing of ship liner services, tax on freight rates, and cargo quotas based on volume and value of trade.

Mr. Clinton Davis said that a decision on EEC ratification of the United Nations code on liner conferences would have to be taken at the November meeting of EEC Transport Ministers. Agreement could have been reached this week, but Britain still refused to agree with the developing nations a greater share of world trade.

It was first proposed in 1974. Mr. Clinton Davis said EEC liner trade would have to be excluded for the code to be accepted in its present form. Britain wanted a code which had little impact on trade between the members of the Community but which would assist the developing nations gain a greater share of world trade.

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OVERSEAS NEWS

S. African economic recovery proving hesitant and uneven

BY QUENTIN PEEL

JOHANNESBURG, June 13.

LATEST INDICATORS of industrial performance in S. Africa suggest that economic recovery, although under way, is proving much more hesitant and uneven than Sen. Owen Horwood, the Minister of Finance, would like. The best figures so far have come from the motor industry, showing real growth over its severe depression of last year. Motor sales in May were 38 per cent up on May 1977, and the figures for the first five months—50,000 car sales—were 24 per cent up on 44,493 of those months last year.

The metal and engineering industries also report "a continuing pickup," according to the Steel and Engineering Industries Federation (Seifed), but only in some 50 per cent of the sectors, and then only marginal. The rather less up-to-date figures from the Department of Statistics on overall manufacturing output show, moreover, that there was a real decline between February and March, leaving

volume nearly 3 per cent lower. Motor industry spokesmen caution that their figures may well not be a reflection of the underlying economic trend, being to some extent the result of cyclical replacements, and also buying ahead of the introduction of the new general sales tax on July 8.

The Seifed survey is based on members' returns for April and represents one of the most reliable indicators of economic activity. It reports that "the recovery in manufacturing output in a number of sectors... is being sustained."

Those sectors which continued to report recovery both in output and order intake included general engineering, light metal manufacture and the telecommunications and electronics industry. Slow but steady growth was reported by the agricultural equipment sector, automotive component manufacturers, and producers of electrical equipment.

Kuwait will press for OPEC oil price rise

By Ihsan Hijazi

BEIRUT, June 13.

KUWAIT will press for higher oil prices at next Saturday's meeting of the Ministerial Council of the Organisation of Petroleum Exporting Countries (OPEC), the country's Oil Minister, Sheikh Ali Khalifa al Sabah, has announced.

In an interview published here today in the English-language newspaper, the Middle East Reporter, he said the OPEC conference will "definitely discuss oil prices" but he could not predict the outcome. Sheikh Ali predicted that the current world-wide oil glut will recede before the end of this year.

The Minister said there is a good reason for an increase in oil prices. "Our income has deteriorated as a result of the fall in the dollar and the recent strengthening has not compensated us for past losses," he said, and he doubted that the dollar will ever reach previous levels. "As such I feel we are entitled to a compensation for the falling dollar," the Minister pointed out.

He said that Kuwait's revenue from oil would have been 10-15 per cent higher if it were not for the drop in the dollar rate. Sheikh Ali pointed out that demand for oil on the world market is picking up, "though not as fast as we would love to see it." He added: "The willingness of various countries to over-produce or to over-supply is diminishing and I see an approach towards a balance in the near future" between supply and demand. In reply to a question, he said that this could possibly happen before the end of this year.

China cultural figure dies

By Colina MacDougall

KUO MO-JO, President of the Chinese Academy of Scientists, who died yesterday at the age of 86, had been a leading figure on the Chinese cultural scene for over 60 years, though since 1971 he had withdrawn from public life owing to age and illness. His last major political move was probably his much publicised "self criticism" in April 1966, the first evidence that the cultural revolution, then in its very early stages, was destined to affect even the highest party leadership.

SOUTHERN LEBANON

Heavy fighting during handover

BY OUR FOREIGN STAFF

AS ISRAEL yesterday handed over control of the border strip in south Lebanon to Christian militia under the command of Major Saad Haddad, heavy fighting broke out yesterday between the rival Christian militias in the town of Ebdon about 80 miles north-east of Beirut. Among the 40 killed was Mr Tony Franjeh, a deputy and son of the former President Suleiman Franjeh, his wife and two children.

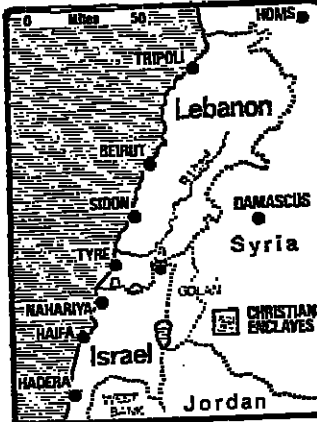
A feeling of an impending national crisis prevailed as Elias Sarkis, President of the Cabinet, to an emergency meeting. The officials were earlier preoccupied with the progress of evacuating Israeli troops from southern Lebanon.

The area which the Christians will be patrolling on behalf of Israel is a strip six miles wide and 59 miles long stretching from the Mediterranean to Mount Hermon. Israel has made this job easier by providing the Christians with military supplies and building a network of roads between the three enclaves, located on the west of Mount el-Chaab, in the centre around Alit el-Chaab, and in the east around Marjayoun. At the same time, the four main crossing points into Israel at Rosh Haikra on the coast, Dovev and Rmeiche in the centre enclave, and near Metulla in the east will stay open.

The Right-wing militia to

whom the evacuated territory was handed over numbers 1,500 men, half of whom are soldiers and officers who belonged to the old Lebanese army which disintegrated during the civil war. The regulars—like Major Haddad—are still officially under the order of the Ministry of Defence, which has instructed him to confine the troops to barracks at the towns of Marjayoun and Qala five and one miles from the Israeli border. All security duties are to be given to the UN troops pending the arrival of the Lebanese army. Yesterday, the Lebanese Government was reported to have prepared a brigade of 1,500 of its own forces to go to the border area to fill the security vacuum.

Until and the Syrian-dominated Arab deterrent force are now facing a crisis if as is probable Major Haddad is determined to stand by his mission of patrolling the border as entrusted to him by Israel. The forces on the left—in Lebanon and radical Palestinian groups—have threatened to attack and to advance as far as the Litani River and thereby to reduce the area from which Palestinians could launch attacks against Israel. On the other hand, which Israel claims that Litani represents the "red line" any Syrian advance would necessitate retaliation. Yet it is in this area of tension that a new development—externally outside its control. At the same time, Israel has made it quite plain that it will not hesitate to come



to the support of the Christian enclaves if they look threatened. The clash in the north between rival Christian groups have few direct connections with the issues of southern Lebanon, although there have been reports of Christians in the north going south to help Major Haddad.

Yesterday's fighting began when 800 members of the Right-wing Phalange Party mounted the attack on the town early in the morning and clashed with followers of Mr. Franjeh. They had cut off all the roads and approached to the town before the attack.

A communique by the command of the mainly Syrian Arab deterrent force said that reinforcements from the force were rushed to the scene, that they had reopened the roads and were entering Ebdon.

Tension between the Phalange Party, which is the largest paramilitary group on the Christian side, and supporters of Mr. Franjeh had been building up since he broke away from the Right-wing coalition known as the "Lebanese Front" and his reconciliation with former Prime Minister Rashid Karami, a prominent Moslem leader from the Northern Town of Tripoli.

Mr. Franjeh's break with the Lebanese Front was over his strong objection to the Phalange Party trying to extend its influence to the Christian north, especially the Franjeh home town of Zghorta and the nearby summer resort of Ebdon.

U.S. call on Israeli withdrawal

WASHINGTON, June 13.

A STATE Department official said today it was hard to see how Middle East peace talks could go ahead until Israel made clear its attitude on withdrawal from occupied territories.

Mr. Harold Saunders, Assistant Secretary of State, told a congressional hearing that the United States hoped negotiations between Israel and Egypt would be resumed after the U.S. received Israeli answers to its questions about the future of two occupied territories, the West Bank and Gaza.

The Israeli Cabinet today deferred its decision on how to reply to the questions. The Cabinet will meet again later this week.

Mr. Menahem Begin, the Israeli Prime Minister, and his supporters are reluctant to commit Israel to withdrawal from the two territories, both for security reasons and because they regard them as historically part of Israel.

United Nations Resolution 242, which is endorsed by the U.S., calls on Israel to withdraw from occupied territories in exchange for secure borders. Asked if the U.S. would put forward its own proposals if the Israeli Cabinet replied to the U.S. questions did not present a good possibility of a resumption of peace talks, he said the U.S. would consult Israel and Egypt "and it is inconceivable we would put forward ideas of our own."

Reuter

Syrian troops committed to policing role 'for years'

CATRO, June 13.

BY ROGER MATTHEWS

THE SUBSTANTIAL withdrawal of Israeli forces from southern Lebanon, the outbreak of fighting today between Right-wing Christian forces north of Beirut, and the sudden spate of warnings about the danger of another Middle East war, all serve to focus attention once more on the critical role played by the Syrian army.

From President Hafez Assad downward there is no doubt in Damascus that Syrian troops will remain in Lebanon for years rather than months to come. The Syrians now contribute more than 30,000 men, the bulk of the Arab deterrent force, and the feeling is that this number will have to be stepped up before it begins to diminish.

Senior Syrian officials believe that it is inevitable that its troops have to move further south from their present positions if effective control is to be achieved, thus paving the way for an eventual handover to Lebanese and Syrian units to

control the rest of the area up to the Litani. All this poses major longer-term political and military problems for President Assad.

During a visit to an armoured brigade headquarters north of Damascus both these aspects of the Syrian role in Lebanon were made obvious. The pace and determination of the round-the-clock military training programme, coupled with daily political lectures for all troops, demonstrated the difficulties of the Syrian role in Lebanon when combined with the necessity of offering a credible military option in the overall Middle East conflict.

Flanked by artillery ranges and nestled between surrounding hills, the brigade—which led the original Syrian push into Lebanon—was both absorbing a number of new recruits while separated from wives and families and re-equipping.

Three Soviet-made T-62 tanks roared repeatedly down three parallel

tracks, with two minutes 20 seconds allowed to knock out six moving targets and the four-man crew having to change roles after each run.

"Our shooting is very good and we learned a lot in Lebanon," said the colonel in charge of training. He then turned to watch nearly 100 men pounding past the control bunker, their heads newly shorn and their throats probably raw from the incessant rhythmic chanting of "Hafez, Hafez, Hafez."

The Political Section in Damascus is charged both with Israel and the domestic explanation of such matters as why it is necessary sometimes to kill

and why men need to serve in Lebanon for long periods of time. It also emphasises at length the virtues of the ruling Ba'ath Party, in part to try and bolster the military budget is growing.

what is a seriously tagging membership. Mr. Assad is a deeply cautious man who, having agonised over moving into Lebanon in 1976, is now almost totally committed to remaining there at least for the foreseeable future. Equally, he is committed to a "just" peace with Israel which means that he must be ready to send his armed forces into battle again at a moment of his own choosing.

This theme of "consistency" in which he likes to promote is of course costly in military terms and perhaps eventually in political terms. It is not a burden that a nation of 7.75m people and total armed forces of about 227,000 can visualise bearing for long periods of time without serious effects on general economic growth and more present Syrian policy mean that the armed forces are having to be increased in number and the virtues of the ruling Ba'ath Party, in part to try and bolster the military budget is growing.



Japanese authorities yesterday claimed they had averted a pollution disaster after stopping millions of gallons of heavy oil pouring into the Pacific Ocean from giant storage tanks cracked by an earthquake. The earthquake, which jolted the Pacific coastline of Japan's densely-populated main island of Honshu on Monday, killed 22 people and injured 586. It was the strongest to hit Japan in 10 years. The picture shows some of the damage caused.

Are you giving this man an eight hour pay packet for a six hour day?



Consider for a moment how much that effectiveness depends on you. Put him in the wrong truck and chances are his real productivity will plummet. His truck will break down, gulp fuel and maybe spend four hours on what should be a three hour journey. Any of which will mean you're not getting your money's worth. Put him in a Mercedes-Benz truck on the other hand and you'll find he's driving a truck that's reliable, economical and durable. A truck that can be really hammered and hammered hard. A truck that will spend less time off the road and more time making deliveries. You may well find that as a result of investing in a Mercedes-Benz fleet you'll end up paying your drivers more. That's no bad thing. Because your driver's pay packet can be a direct reflection of your profitability. Speak to your transport manager now. Check out your operating costs for yourself? And in the meantime, ask your secretary to clip this ad to your letterhead and send it to us. By the time you're in a position to realise the viability of Mercedes-Benz trucks all the relevant information will be on your desk. Mercedes-Benz. The way every truck should be built.



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AMERICAN NEWS

Castro blames Brzezinski for 'total lie' over Zaire

BY DAVID BELL

PRESIDENT PIERRE CASTRO, the Cuban leader, last night publicly denied for the first time that Cuban forces were involved in the Katanga invasion of Zaire and said that U.S. charges to the contrary were based on "lies manufactured by Dr. Zbigniew Brzezinski, Mr. Carter's National Security Adviser."

In an interview with U.S. correspondents in Havana, Dr. Castro said he had already explained privately at great length to the Carter Administration that he had tried to stop the Katanga incursion into Shaba province.

He conceded that in the past, Cuba had worked with the Katangans who had participated in the final stage of the liberation of Angola in 1975. He added: "Since early 1976 we have tried to avoid relations with the Katangese. We felt that after the war Angola needed peace to reconstruct itself. It needed to improve its relations with its neighbours."

The Cuban leader said that neither Angola nor Cuba had any moral or legal problems with helping the Katangese in their fight against the Government of President Mobutu... but both countries made a policy decision not to enter into relations with the Katangese or to co-operate with them.

President Castro said that the Katangese requested help but it had not been given. Asked why he had failed to stop the invasion as he said he tried to do, Dr. Castro said that President Agostinho Neto, the Angolan leader, had tried to halt the invasion but had been ill in Moscow just before it took place.

Dr. Castro was careful not to blame President Carter directly for what he described as "not a half-lie but a total absolute and complete lie" about recent Cuban involvement in Zaire. Rather he laid the blame at the door of Dr. Brzezinski saying that he had manufactured the accusation and deceived the President. There were people in Washington, Dr. Castro said, who wanted to create a "Tonkin Gulf" for Africa.

The interview adds one further layer of confusion to the question of Cuban involvement in Zaire. Officials are not clear why

WASHINGTON, June 13.

Dr. Castro, who has no love for the Mobutu regime, should be so keen to convince the world that he had no part in a plot that might have overthrown it. There is speculation that he may be trying to drive a wedge into the Carter Administration by singling out Dr. Brzezinski for attack.

The Administration is likely to be embarrassed by the fact that Dr. Castro produced a reply from Mr. Cyrus Vance, the Secretary of State, to a message to the White House sent via a senior U.S. diplomat in Havana that was disclosed over the weekend. In this Dr. Castro said that he had had no hand in the Shaba affair. In his reply Mr. Vance thanked the Cuban leader for his message. He said that it was appreciated and that it had been noted. Dr. Castro said that in contrast to what had been said by the U.S. media, he had been "kind and friendly."

Dr. Castro said that he would be prepared to meet President Carter to discuss the subject if necessary and added that the President was a "decent and honourable man and I don't want to preclude the possibility that he has been misled."

U.S. airlines may cut IATA ties

BY JOHN WYLES

NEW YORK, June 13.

THE U.S. Civil Aeronautics Board (CAB) struck at the very heart of international airline fare and rate agreements yesterday by issuing a proposal to withdraw the United States from International Air Transport Association (IATA) agreements.

The CAB indicated three weeks ago that it might end 32 years of U.S. participation in IATA. While acknowledging that the result might be greater Government involvement in the fixing of airline fares, the CAB has concluded that this would probably be less anti-competitive than the status quo.

During the past year the CAB has become the standard bearer of greater competition and cheaper air fares and has encouraged the wave of discounts which have made cut-price air tickets available on almost all major U.S. domestic routes. In turning its attention to international air travel, the CAB has been impressed by the collapse of IATA fare agreements on north Atlantic services and the highly competitive, lower fares which have resulted.

The CAB has acknowledged the importance of its attempt to withdraw U.S. airlines from IATA by allowing 120 days for comments on its proposal rather than the 30 days normally granted.

In yesterday's order the CAB argues that circumstances have changed radically since 1946 when U.S. airlines were freed from the restraints of anti-trust laws and permitted to participate in IATA. It was no longer safe to assume that U.S. carriers alone had the resources to engage in price competition. They had ceased to dominate international aviation "and the bargaining power of our allies is now much more important to our own."

Multilateral rate-making through IATA was not the sole mechanism through which "friendly and mutually beneficial aviation relationships" could be secured, the CAB said.

Discussing the risk of greater government involvement in fixing airline fares, Mr. Alfred Kahn, the CAB chairman, said last month that he was taking some comfort from the bilateral agreements which the CAB's staff reached with Britain and Holland. The U.S. had been able to persuade other countries "to trust the fortunes of their airlines to a freer play of international price competition," he said.

One of the five CAB members dissented from yesterday's proposal. Mr. Richard O'Malley, argued that a decision of such importance warranted formal hearings, adding that he could not agree with the CAB's tentative findings. The IATA resolutions were no longer in the public interest.

Meanwhile, U.S. and British aviation officials are to have further talks on the terms under which Boston will continue to be linked to London by U.S. airline services. Under the Bermuda 2 agreement only two U.S. cities were to be nominated for service to London by two U.S. flag carriers and the CAB nominated Los Angeles and New York.

Fed replies to Congress on interest on interest

By Our Own Correspondent

WASHINGTON, June 13.

MR. WILLIAM MILLER, chairman of the U.S. Federal Reserve Board, has reserved the right to begin paying interest on reserves deposited with the Fed by member banks but has told Congress that he has no desire to usurp its power.

His statement came in a carefully-worded reply to a letter from the chairman of both the House and Senate Banking Committees. They warned Mr. Miller that the Fed would need congressional approval to pay interest on reserves and that if it went ahead without such permission it would precipitate a major clash between the Central Bank and Congress.

Mr. Miller said that the Fed's right to pay interest was a legal matter and hinted that other members of both committees might not agree with the chairman. But he conceded that if they did it would be unlikely for the Fed to pay interest in the face of congressional opposition.

The Fed has been tussling with the idea of paying interest on members' deposits as one way of halting the long-term decline in membership of the system. Since 1968 some 527 banks have pulled out of the system saying that they could not afford to tie up their reserves in non-interest bearing deposits. Last year 35 banks with total assets of \$414 left the system.

By the end of this month Mr. Miller is expected to unveil a programme designed to stop the fall in membership. The plan may include some reduction in reserve requirements, the specific pricing of services provided by the Fed coupled with payment of interest on the public being aware of this fact. He said that Congress has a law saying that any financial institution must keep their reserves with the Fed.

Insurance by foreign banks urged

By David Lascelles

NEW YORK, June 13.

PRESSURE is mounting on the New York branches of foreign banks to insure the deposits they hold in the U.S. At present these branches are exempt from federal law which in most cases compels U.S. banks and the subsidiaries of foreign banks to insure deposits with the Federal Deposit Insurance Corporation (FDIC), a Government agency.

According to Miss Muriel Siebert, the state superintendent of banks, there is growing concern about the speed with which some of these banks are acquiring deposits without insuring them, and without the public being aware of this fact. She referred to one bank that was taking full-page advertisements and offering gifts as inducements to depositors, but she refused to name it.

Speaking at a banking symposium yesterday, Miss Siebert said that her department has proposed legislation requiring branches of foreign banks to notify depositors that their money was not insured. This would be stop-gap legislation pending the passage of a federal bill, known as the International Banking Act, which will require these branches to insure deposits in states which have compulsory insurance laws.

New legislation would affect National Westminster Bank, for example, since it operates a single branch where deposits are not insured. In common with many banks in a similar position, NatWest argues that insurance is unnecessary since the branch does not solicit deposits and only accepts late deposits from corporate customers which exceed the \$40,000 insurance cover limit. By contrast, Barclays, which owns a subsidiary here, already insures under the obligation to insure.

The timing of both the Bills is uncertain because opponents argue that their requirements could be discriminatory.

European study, Page 26

USSR 'may accept troop parity in Central Europe'

By Our Own Correspondent

WASHINGTON, June 13.

U.S. ARMS control negotiators deciding which troops to pull out expressed cautious optimism today about an apparent Soviet concession in the long-running talks in Vienna. The U.S. side has proposed a mutual reduction of troop strengths in Central Europe.

According to reports here this morning, which could not be officially confirmed, the Soviet Union has agreed to accept the limits that NATO and the Warsaw Pact should agree to set equal ceiling on air and ground personnel should be no more than 900,000. This apparent concession leaves many other problems still to be resolved, since apart from anything else there is no agreement on the number of troops actually now in place. The Russian claim that their forces are significantly fewer than Western estimates suggests still leaves room for endless argument about respective levels.

Nevertheless, there is some optimism here that the Russians may now have accepted, at least in principle, the concept of parity and this could, therefore, be a significant advance.

Trudeau constitutional plan faces problems

By Our Foreign Staff

OTTAWA, June 13.

THE CANADIAN Prime Minister, Mr. Pierre-Elliott Trudeau, has scored an initial success with his proposals for far-reaching changes to the Canadian constitution. In a speech to the House of Commons, Mr. Trudeau welcomed by Mr. Joe Clark, the leader of the Progressive Conservative Opposition.

But that does not portend an easy passage for the proposals once they are tabled in September, after the Parliamentary recess in Ottawa. The issues raised are too controversial for that in all the parties. The precise details of Mr. Trudeau's plan was not disclosed in a White Paper published on Monday, but it did say that the Trudeau Government wants to guarantee the right of both English and French Canadians to have their children educated in their own language, and to associate the Canadian provinces closely with the law-making process in Ottawa.

The schooling proposal not only cuts across the plans of the Quebec Government to make French predominant there, it is necessary at the expense of freedom of movement. It will also arouse the suspicions of many Anglo-Canadians, especially in the West.

Nor will there be an easy passage for the proposal, as yet vague, to substitute a House of Federation, for the existing Senate, a body nominated by the federal Government and originally inspired by the model of the British House of Lords. The White Paper is tantalisingly vague about this proposal apart from saying that the provinces would play a role in selecting the members of the new House. The most far-reaching possibility that has been discussed would make members of the House the representatives of the provincial governments.

Whereas the language proposal

WORLD TRADE NEWS

Ceausescu likely to boost trade

By Roger Boyes

ROMANIAN trade officials are optimistic that the much delayed agreement for Romania to build the BACC One-Eleven short-haul aircraft will be finalised during President Ceausescu's four-day visit to Britain, which began yesterday.

Although final details of the deal under which Romania will build 82 of the aircraft—in conjunction with British Aerospace—have not been finalised, it is likely that some form of protocol will be signed when Mr. Ceausescu visits the company tomorrow.

Parallel deals with Rolls-Royce for the supply of engines and with other companies for various forms of aircraft equipment are also expected to be signed.

The British aerospace deal, worth some £200m and involving a number of deals currently under negotiation, provides an illustration of the Romanian policy of developing self reliance.

Under the terms of the preliminary agreement, parts of the aircraft will be manufactured in both countries, with a gradual expansion of Romania's technical expertise until the country can take over full scale production, probably in the early 1980s.

About half the aircraft will be allocated to the fleet of Tarom, the Romanian airline, and the rest will be exported mainly to other East European countries.

This type of deal, blending the transfer of technical skills with a long-term trading relationship, is particularly attractive to Romania. The preference, indeed Romania's whole trade philosophy derives from its view of itself as a developing country with a need for capital investment and technology.

As for all developing countries, such needs often pose a threat to independence through conditions imposed by supplier countries. Romania has tried to diminish this risk by encouraging co-production and joint ventures, especially in third countries.

As Romania passes to a higher stage of development—President Ceausescu speaks of Romania becoming a "medium developing country"—new threats arise from a possible dependence on imports of raw materials, such as iron ore, coking coal and, increasingly, oil as well as on its own continuing exports of manufactured goods.

To side-step, if not ultimately to avoid, these problems Romania has reduced its trade dependence on Comecon and the Soviet Union in particular. As Romania has shifted away from Comecon, so the West, including Britain of course, has benefited. Indeed the Romanians, ever sensitive to the possibility of exploitation, might argue that Britain has benefited rather too much. President Ceausescu will certainly be pressing Mr. Callaghan during talks to increase British purchases of Romanian goods.

British sales to Romania amounted to £80.4m last year while Romanian exports to Britain totalled £52.4m. This represented an increase of under £3m for Romania over 1976, compared to a corresponding British increase of over £30m.

In addition there is the vexed problem for Romania of the West, can penetrate Western markets on a long term basis and eliminate some of the uncertainties in projecting future trade balances and financing requirements.

An additional advantage for Bucharest is that the demand for constantly increasing quantities of grain can actually be built into counter-trade deals.

Renault in £475m car plant agreement with Romania

By David White

RENAULT, THE French State-controlled motor company, has signed a deal worth about £475m for expansion of the Romanian motor industry, the second big contract of its kind to have come to France in a week.

Renault's FF 4bn deal involves doubling the capacity of a car plant at Pitesti, where the Romanians make Renault models under licence, and constructing a factory for pick-up trucks. Both are due to be completed by 1980.

The contract comes only a few days after the signing by Automobiles Citroen of a FF 1.6bn (£200m) contract for a plant at Ziebkau in East Germany to build front wheel drive transaxions.

The Citroen won the East German deal against the competition from the UK manufacturers. GKN, GKN had dropped out because of the East Germans' insistence on a buy-back clause in the contract.

Renault's contract, like Citroen's, including buying parts from the Eastern European operation. It will expand its current purchases of gearboxes and other parts used in French-made Renault vans.

Capacity at the Pitesti plant will be doubled from 75,000 vehicles a year to 150,000. The Romanians will trim their output of the Dacia 1300, a local version of the R12, to 60,000 a year and start producing Renault's new medium-sized saloon, the R18, with an installed capacity of 90,000 cars a year in 1980.

About 94 per cent of the parts for the Dacia 1300 are locally produced in Romania.

At the same time, a new assembly plant will be built to produce 35,000 pick-up vehicles a year, initially with engines imported from Renault in France.

Part of the Romanian pact involves assistance in marketing the vehicles produced, through Renault networks in areas such as Africa and Asia where the Romanian vehicles are considered well suited to local conditions.

Citroen also has an agreement with the Romanians, signed 18 months ago, under which it is to co-operate in a FF 2.5bn investment to produce a new car for the Romanian market.

Renault is meanwhile awaiting a long-delayed decision by Algeria on a car plant, which was originally destined to produce 100,000 vehicles a year and for which the French company is competing with Fiat of Italy.

France-Soviet trade grew by 35 per cent in 1977 to FF 13bn, according to the Franco-Soviet Chamber of Commerce.

Despite the sharp increase, however, the value of new contracts signed between French and Russian companies last year fell sharply to only FF 2bn from FF 7bn in 1976, reports APJ from Paris.

The Chamber of Commerce says it hopes to meet the year's target of FF 10bn worth of new contracts.

France had a trade surplus with Russia last year of FF 1.67bn. Exports to the USSR totalled FF 7.5bn and imports amounted to FF 5.8bn.

Poles build Soviet pipeline

By Christopher Bobinski

THE POLISH construction company EnergoPol is to build a 300-km section of a new pipeline in the Soviet Union which will link the Surgut oilfield in the east of the north Ural area to Poland in north-eastern Russia. The pipeline will be an extension of the "friendship" pipeline system built in the 1960s.

The contract is part of a Polish-Soviet inter-governmental agreement signed earlier this year. Details released today by EnergoPol show that work is to start by the end of this year and it is expected that the Polish sector will take up to two and a half years to complete. Around 1,500 men are expected to be employed on the project.

One complication is that 40 per cent of the route runs through marshland. This means that EnergoPol will need special soft ground transport machines and equipment for which they expect to be placing orders with Western companies within the next six months.

This will be the third pipeline that EnergoPol has helped to build in the Soviet Union. It has laid a 584-km section of the Orenburg pipeline, which runs from the Orenburg gasfields to the Soviet Union's western border, work on which will be completed in two years' time. The other contract is the 442-km pipeline running west of Polock which will be ready by the middle of 1979.

EnergoPol's transport equipment and 100 per cent of its welding equipment comes from Western companies like Caterpillar, JCB, Kockums or the Greiner Resources Corporation.

The Surgut pipeline, as will the Orenburg and Polock pipelines, will be paid for with supplies of Soviet gas and oil. Projects of this kind which require immediate heavy expenditure of hard currency and are effectively hard currency credits extended by Poland to the Soviet Union are seen as a way of gaining much needed future supplies of Soviet raw materials. But they also provide experience which can be applied in other markets.

EnergoPol, which employs 20,000 workers and was set up in 1975 specifically for the Orenburg project, is also active inside Poland, in East Germany and Austria. But EnergoPol executives say that they want to concentrate on projects in the petrodollar countries in co-operation with the large Western companies.

An example of such a contract is the IGAT 2 pipeline in Iran with Spie Casag of France and IRA Casag of Iran. Another recently signed contract is for the construction of a 140 km long 28 ins diameter gas pipeline from Mosanski Brod to Sisak in Yugoslavia.

South Korean attention on New Zealand

By Dai Hayward

SOUTH KOREA is making a major effort to win a bigger share of the New Zealand import trade.

The South Koreans are particularly anxious to win orders for heavy machinery, telecommunications equipment, electronic equipment, iron and steel products, automobiles and building materials—areas in which they will be in direct competition with the UK, Japan and Australia.

A large trade mission of more than 40 government officials and businessmen, led by the South Korean Minister of Commerce and Industry, Mr. Gak Kyu Choi, has had extensive discussions and negotiations in Wellington.

At present, New Zealand has a favourable trade balance with Korea. These could include off-shore fishing, New Zealand and food processing of New Zealand agricultural exports in Korea.

The two countries are already involved in New Zealand's paper pulp industry with a new thermomechanical pulp mill, which is due to begin production early next year. At a special business men's meeting, representatives from both countries discussed the present economic situation and the outlook for their respective countries. It was accepted that New Zealand's ability to buy from overseas countries depended heavily on its ability to export meat, dairy products and wool on a stable long-term basis.

At present, New Zealand has a favourable trade balance with Korea, but both countries are anxious to increase trade. Some New Zealand exporters are already processing in Korea for further marketing in Japan.

New Zealand believes it will increase sales of timber, primary products and agricultural technology to Korea. The New Zealand Government has supported the Korean initiative and has given its blessing to the Korea-New Zealand Economic Co-operation Committee which will set as a vehicle to get businessmen together and promote mutual interests. It will also help resolve problems including tender and supply practices and financial methods governing imports and exports between the two countries.

Aircraft leasing grows

By Nicholas Farmakides

JAPAN'S PLAN to purchase foreign aircraft and lease them to lines in other countries is developing, AP-DJ reports from Tokyo.

Industry and Government sources in Tokyo say Philippine Airlines and British Airways are negotiating with Japanese leasing companies to arrange financing to acquire new U.S. aircraft. Purchase of the aircraft by Japanese leasing companies would be financed by the Export-Import Bank of Japan. The companies then lease the aircraft to the airlines for periods of up to 10 years, after which title would transfer to the airlines.

Negotiations with British Airways and Philippine Airlines indicate that Japanese leasing companies have been promoting the financing scheme aggressively. They have also been negotiating with Korean Airlines and Thai Airways International, and have held exploratory talks with China Airlines and some South American carriers.

The leasing plans offer air carriers lower interest rates than are available through U.S. banks, with guarantees by the U.S. Export-Import Bank.

They come at a time when U.S. aircraft manufacturers are complaining about difficulty competing with foreign manufacturers because of poor financing terms available in the U.S. British Airways is understood to be considering the acquisition of one Boeing 747, another 747 or a Lockheed L-101, the total value could be about \$120m.

The leases, which may include British Government repayment guarantees, would probably be for about 10 years, the maximum permitted by Japan's Ex-Im Bank for this type of loan. Interest rates are expected to be set in the area of 8.25 per cent to 8.5 per cent annually.

BUCHAREST, June 13.

BRITAIN—on a range of products including textiles, glass and clothing.

The Romanians eagerly point to the areas where British trade could be expanded: electronics, chemicals, mining machine tools, shipping perhaps and metallurgy certainly. Foreign trade officials carefully stressed last week the possibilities of joint steel projects in third countries.

In common with other East European countries, Romania favours counter-trade, "barter and compensation arrangements." In talks with Romanian officials a week it was clear that counter-trade above all would be emphasised in the forthcoming 1980-85 plan guidelines, currently being drafted.

For Romania, counter-trade means that it can in the short term relieve its balance of payments difficulties with the West, can penetrate Western markets on a long term basis and eliminate some of the uncertainties in projecting future trade balances and financing requirements.

An additional advantage for Bucharest is that the demand for constantly increasing quantities of grain can actually be built into counter-trade deals.

Japan EEC trade talks next week

By Our Own Correspondent

JAPAN AND the European Economic Community will hold two days of high-level talks in Tokyo next week to discuss trade problems and the Japanese huge current account surplus according to the Japanese Foreign Ministry.

Sir Roy Denman, the EEC Commission's Director-General for External Affairs, will represent the EEC at the talks which will be held in Tokyo. Japanese Deputy Foreign Minister, Mr. Hiromichi Miyazaki, will head the Japanese delegation.

Japan's Toyota Motor Company reported a big jump last month in its exports to West Germany and a decline in its exports to the U.S. The May export total to West Germany was 4,713 vehicles, up 31.8 per cent over May 1977. But Toyota exports to Britain fell 5.2 per cent to 2,674 vehicles while the shipments to Britain of another leader, reporting today, the Nissan Motor Company, declined 28.8 per cent to 7,600.

Brazil plan to reduce government imports

By Our Own Correspondent

RIO DE JANEIRO, June 13. **BRAZIL** PLANS to cut spending on goods imported by the Government for its use by \$200m from this year, to help balance its trade account, according to officials in the Planning Ministry.

The Government is also planning a further cut of \$180m in those goods imported by the Government, but for use by other sectors, such as petroleum or non-ferrous metals.

The cuts, which will be spread over a number of sectors, have been approved by the Economic Development Council (CDE) and will shortly be presented to President Goulart.

The measures stem from an expected drop in new in-flow materials, which are around \$2.5bn from close to \$3bn last year, resulting from drought in the south.

At the same time the Government is hoping for a 26.2 per cent rise in exports of manufactured and semi-processed goods to compensate for this year.

The latest figures from the Finance Ministry show Brazil had a \$334m trade deficit in the first four months of this year on exports of \$3,700m and imports of \$4,034m, against a deficit of \$79m in the same 1977 period on exports of \$3,700m and imports of \$3,840m.

Reuter

Increase in Finnish exports

By Our Own Correspondent

HELSINKI, June 13. **FINNISH** contractors signed over 30 new projects worth about \$1.2bn in 1977, exceeding the total value of all export projects during the period 1960-76 (expressed in 1977 prices).

The biggest project was Kostamus, a \$700m project involving the planning and construction of a mining industry combine and a town for 10,000 inhabitants in the Soviet Union.

In the Middle East new projects were signed worth about \$400m. Finnish contractors are now operating in over 20 countries.

According to the results of a survey by the Association of General Contractors of Finland, the value of contracting exports was almost \$300m in 1977. This represents an increase of 58 per cent over 1976's figure of \$190m.

Contracting exports have been concentrated in the Soviet Union, in the Middle East and in Africa. Industrial projects near the Finnish-Soviet border were signed almost half of Finnish contracting exports in 1977, worth over \$100m. The other half consisted of large projects in various fields of construction in the Middle East (\$100m) and in Africa (\$50m).

In Saudi Arabia Finnish companies are involved in large projects concerned with water supply and residential areas. At present a \$150m residential project is under way in Iran. In Iraq, Finns have signed a \$150m contract for building a network of vocational schools. In Nigeria Finnish contractors have carried out mainly large residential projects.

Rough ride ahead for GLC road proposals

By John Bremman,
Property Correspondent

A £855m, 15-year road building programme and a policy of rent and planning incentives to draw industrial jobs back into the capital were announced by the Greater London Council yesterday.

Miss Shelagh Roberts, leader of the council's planning and communications policy committee, said that the new road programme was essential. "From every quarter concerned with generating London's economy and expanding industry and commerce, the view that is being expressed upon us is: London must have a better roads system."

The plans are bound to spark a major row at County Hall when they are discussed at today's policy committee meeting. A spokesman for the minority Labour group on the GLC warned yesterday that "The Tories' proposals for a deliberate withering of resources makes it clear that they are willing to sacrifice public transport to the private motorist. They are prepared to press ahead with old road schemes at the cost of crippling the capital's public transport."

The GLC road proposals involve road expenditure being more than doubled in the next 15 years. Miss Roberts said: "Our proposals are to improve London's strategic road network and to fill in some of the yawning gaps that exist. Projected road spending will rise to £155m between 1978 and 1983, and to £280m and £420m in the succeeding five year periods."

The controversial "motorway box" plans of the early 1970s have not been revived, and Miss Roberts confirms that the idea of an inner London motorway network is "not acceptable both in social and financial terms and will not be built in London by this administration."

Instead, the GLC plans a comprehensive scheme of road improvements based on studies to find ways of easing congestion in London's orbital traffic flow and to resolve specific traffic bottlenecks in inner London, along the A23, the A2 and the new circular Road. The GLC will also consider plans for a docklands urban relief route.

The roads programme has received only a lukewarm welcome from the Movement for London Committee, which represents the Confederation of British Industry, the motoring organisations and the leading road freight federations.

Editorial Comment, Page 20

Bankruptcy trustee named by creditors of William Stern

By MARGARET REID

CREDITORS OF Mr. William Stern, whose personal bankruptcy with debts of more than £104m. was the biggest ever known in Britain, yesterday appointed a trustee in bankruptcy for the former property tycoon.

The trustee is Mr. George Auger, of accountants Stoy Hayward. Mr. Stern, 44, whose property empire collapsed in 1974 and who was adjudged bankrupt on May 30 this year, with his own consent, did not attend the short meeting at the Law Courts in London, but waited in another room.

A committee of inspection was also appointed by the creditors, who include a subsidiary of the Crown Agents and a considerable number of banks. The committee consists of representatives of First Millbank Nominees, a Crown Agents subsidiary, Keyser Ullmann and First National Bank of Chicago.

The statement of affairs submitted by Mr. Stern showed debts of £24m to the Crown Agents and of £20.5m to Keyser Ullmann, the merchant bank which brought proceedings resulting in a receiving order being issued against Mr. Stern in April.

Mr. Geoffrey Gillvray, told Official Receiver, yesterday told the gathering of about 25 creditors, 19 of whom had submitted official claims, that the statement of affairs had put the debts at £104.4m.

This figure included unsecured liabilities of £269,000, partly secured claims of £46,000, contingent liabilities (mainly under guarantees) of £104,082m and preferential debts of £6,960. Assets were estimated at £14,070.

Mr. Gillvray said that Mr. Stern was a naturalised British subject with a Harvard law degree. He had six children and his London home was owned by a family trust.

He was now working as a business consultant from premises at Prince Albert Court, Prince Consort Road, London, earning about £20,000 a year and acting for a number of companies.

Mr. Gillvray added that Mr. Stern's bankruptcy "stems directly from guarantees he gave on behalf of his companies." His public examination in bankruptcy has been fixed for October 20.

Breweries can merge - Hattersley

By Kenneth Gooding

FURTHER reorganisation of the brewing industry can go ahead as long as it involves only medium-sized and small companies.

That was the message from Mr. Roy Hattersley, Secretary for Prices and Consumer Protection, when yesterday he gave the permission for the agreed merger of Greenall Whitley and James Shipstone to proceed without a Monopolies Commission investigation.

The brewers have been awaiting this decision with more than usual interest because last month after discussions with the industry, Mr. Hattersley told Parliament: "I have made clear to the industry my intention to examine any further proposals for mergers between firms in the industry with particular care."

There has been consistent pressure from Scottish interests, particularly from some trade unionists, for a ban on malt shipments which go mainly to Japan and Latin America.

The claim is that this malt whisky goes to improve the taste and quality of some Japanese whiskies and that those whiskies might provide competition for Scotch in world markets in the future.

He was speaking after a two-day tour of the Scottish whisky industry which ended with a meeting with representatives of the Scottish TUC in Glasgow.

Plea by Lever on financing deficits

Financial Times Reporter

A CALL for the scale and nature of finance for international deficits to be strengthened was made yesterday by Mr. Harold Lever, Chancellor of the Duchy of Lancaster.

He told the annual luncheon of the London Chamber of Commerce and Industry that this would give surplus and deficit countries alike the time they needed to make structural changes without bringing on economic disruption.

This move could be made at the Bonn summit next month, which should aim to improve co-operation between countries for greater currency stability.

"The summit must give a new impetus to the world's economies," he said.

He accused great nations of acting like old-fashioned bankers with an inherited instinct to hoard gold.

"They have failed to bring the reserves of the world to the service and support of the world's trading system from which these funds derive and which cannot function properly without them."

Countries which were competitive and successful should ensure that additions to their reserves did not end up as dangerous misers' boards, but that they were effectively deployed in the world's trading system.

Barclays puts up loan interest rates

By Michael Blandan

CUSTOMERS of Barclays Bank and its credit card subsidiary, Barclaycard, are to pay higher interest rates for their loans.

In line with the general rise in interest rates, Barclays announced yesterday that it was raising the cost of new personal loans from July 3 from the present true interest rate of 14.95 per cent to 16.65 per cent.

At the same time, Barclaycard raised the cost of credit for its nearly 4m cardholders from 13 per cent a month on outstanding balances to 14 per cent a month from July 19.

The increase in the Barclaycard rate lifts the maximum effective interest rate to cardholders from 19.5 per cent a year to 23.1 per cent. But taking account of the free credit period available to holders, the average interest rate paid is likely to be closer to 14 per cent.

Tories alter policy on industry White Paper

By JOHN ELLIOTT

THE Conservative Party has decided to oppose the Government's White Paper on industrial democracy which was published three weeks ago.

The decision has been taken in spite of an initially favourable reception given to the proposals in the Commons by Mrs. Margaret Thatcher, the Conservative leader.

The change in attitude was announced yesterday by Mr. John Nott, the Conservative's spokesman on the Department of Trade affairs at an Industrial Society conference in London.

He backed the views of many industrialists when he criticised the White Paper because its proposals are largely based on the trade unions and because they involve some statutory enforcement.

"My examination of the White Paper leads me to the conclusion that it is extremely disappointing. This is not because of the Government's adoption, nor even because of its stated aspirations,

the majority of which I certainly share myself."

"It is because it represents a political compromise between two irreconcilable objectives, namely the determination to extend yet further the power and influence of organised labour and, at the same time, encourage greater involvement for all employees in the business of their companies."

He objected to the notion of extending collective bargaining into company decision-making. "The Government's plan is really suggesting a further extension of union power at the expense of management."

Statutory fallback proposals for consultation and boardroom representation contained in the White Paper would become "the minimum negotiating stance of the unions" when companies tried to introduce voluntary arrangements.

A Conservative Government would put forward proposals based on voluntary guidelines

contained in a code of practice, he said.

The proposals were spelt out by Conservative Party leaders a month ago and are based on shop floor participation of all employees with only voluntary experiments involving workers' directors. There would also be changes in company law covering the interests of employees.

Profit sharing would be encouraged.

Mr. Edmund Dell, Secretary for Trade, told the conference that he did not want to introduce any legislation which would be overturned by a later government.

But he rejected ideas that there should be no legislation. "What is clear is that it would not be acceptable to make employees' right to participation in decision making rely entirely on the enlightenment and goodwill of their employers." That was why the White Paper contained statutory fallback proposals.

£25m grants for energy saving

By KEVIN DONE

TO ENCOURAGE greater investments in energy saving, further grants worth £25m are being offered to manufacturing industry and commerce by the Government.

This latest measure is essentially short-term and is aimed at encouraging companies to replace or modernise boiler plant, improve or replace combined heat and power systems.

Mr. Eric Varley, the Industry Secretary, said yesterday that in manufacturing industry alone cost savings of about £370m, a

year could be achieved through energy conservation measures.

The £25m scheme will run initially for two years. The Department of Industry hopes to have all applications in by June 1980, and investment schemes fully implemented by June 1981.

The new scheme will offer:

- 25 per cent grants for replacement and modernisation of boiler plant.
- 24 per cent grants for insulation of premises, capital grants for the replacement and modernisation of combined heat and power systems.

● 50 per cent grants for associated consultancy work.

Together with other schemes announced over the last six months the Government is now offering about £400m in grants for various energy saving measures.

It also announced yesterday that the Department of Energy's Saving Loan Scheme would be wound up because only a small number of inquiries had been received. The scheme, operating for 3½ years, gave loans totalling only £100,000.

Tribal art sale brings in £607,840

CHRISTIES yesterday held its most important sale of tribal art, bringing in £607,840. The top price was the £220,000 paid by the New York dealer Walter Randal for a 19th-century wood carving of Chibinda Ilunga, a legendary 15th-century hero of the Jukwa tribe of central Africa.

The 16-inch high figure was collected in Angola in the late 19th century, and establishes a new auction record for an item of tribal art. It had been expected to go for nearer £50,000. All prices carry a 10 per cent buyer's premium.

The National Museums of Canada, which spent a total of \$67,554 at the auction, paid \$21,000 for an 18th-century quilled

The National Museums of Canada, which spent a total of \$67,554 at the auction, paid \$21,000 for an 18th-century quilled painted skin-mao coat of about 1770 for £14,000 while a Mbete wood reliquary figure sold for £13,000 and an 18th-century Maori canoe prow head for £12,000.

At Sotheby's auction at its new Rainbow gallery in Torquay, the morning session brought in £142,478 for marine paintings, with a top price of £7,000 for a naval hired vessel in three portions off a headland, by John Cleveley.

The Whassell Gallery paid £6,000 for *Loading Cavalry* on a Littlecoat.

Other good prices in the morning were the £4,000 from Edgar for *A Crab and Lobster Shore* by Edward Cooke, and the same sum for *Shipping in a Squall* off Tynemouth by John Carmichael. The *Cardross* by William Clark made £2,000, and a portrait of William Darling, father of Grace Darling and a partner in her rescue operations in 1838, made £950.

A record price of £1,350 was paid at Phillips for a Charles I oak joint stool of the type which was bringing half the price at auction a year ago. It was bought by a Littlecoat.

To Industry and Commerce

New Energy Conservation Scheme:

save yourself money, save the country's energy

with these new cash grants from the Department of Industry.

- 25% grants for replacement and modernisation of boiler plant.
- 25% grants for insulation of premises, improved ventilation and heating controls.
- Financial assistance for the replacement or modernisation of combined heat and power systems.
- 50% grants for associated consultancy work.

Who is eligible?

Virtually every sector of industry, trade and commerce throughout the UK, including manufacturing and service industries; agriculture; the distributive trades; the construction industry; banking, insurance and professional services.

Saving energy can save you money. Now is the time to apply for these new cash grants to help you cut your space and/or process heating overheads - fill in the coupon and the DoI will send you full details of the scheme and the technical conditions to be met.

To: Energy Conservation Scheme Office,
Department of Industry,
Abell House, John Islip Street, LONDON SW1P 4LN.

Please send me Notes for the Guidance of Applicants!

Name (BLOCK CAPITALS PLEASE)

Position in Company/Organisation

Company/Organisation

Address

Department of Industry
Energy Conservation Scheme



BY MICHAEL CASSELL, BUILDING CORRESPONDENT

Coal mining boost for Gullick Dobson

BY RHYS DAVID

Burberrys store for U.S.

BY OUR CONSUMER AFFAIRS CORRESPONDENT

APPOINTMENTS

£7,000?
£10,000?
£14,000?
at your own target

CONTRACTS AND TENDERS

Democratic and Popular Republic of Algeria

MINISTRE DES INDUSTRIES LEGERES
SOCIETE NATIONALE DES INDUSTRIES

**DE LA CELLULOSE
INTERNATIONAL INVITATION TO TENDER
NOTICE OF EXTENSION OF TIME**

enders, formerly fixed for May 30, 1978, has been postponed to June 30, 1978.
Information from:—
SONIC, 64 Rampe Ali Haddad, EL-Mouradia, Algiers.
Tel: 6538.00-01.04 — Telex: 52.933

BY ELINOR GOODMAN, CONSUMER AFFAIRS CORRESPONDENT

Dollar premium fraud charge

FINANCIAL TIMES REPORTER

BY ELINOR GOODMAN, CONSUMER AFFAIRS CORRESPONDENT

Road safety plea by Minister

BY JAMES McDONALD

● NEWS ANALYSIS—LOCAL AUTHORITY ACCOUNTANTS

A question of standards

BY DAVID CHURCHILL

may inspect the accounts, tried at last week's meeting to question the auditor, and make raise the debate above professional objections to the accounts. sional criticism of public objectors can go to the courts accountants group.

If they feel the auditor has made But rumblings of discontent wrong decision. are likely to continue until local

BY JOHN LLOYD

But rumblings of discontent are likely to continue until local authorities can persuade their citizens that town halls are not synonymous with waste.

FINANCIAL TIMES REPORTER

Extra £10m Government cash for urban projects

BY OUR BUILDING CORRESPONDENT

Insurance industry had successful year in 1977

BY ERIC SHORT

Warning on credit rules

BY MICHAEL BLANDER

The Army Benevolent Fund
for soldiers, ex-soldiers and their families in distress
Dent: Lt. Duke of York's HQ, London SW1, 1939

The Army Benevolent Fund
for soldiers, ex-soldiers and their families in distress

Dept. FT, Duke of York's HQ, London SW3 4SP

مكتبة القرآن

They say if you want something done properly, you've got to do it yourself. For today's busy executive however, that would mean handling several jobs at once.

Something you can manage quite easily with the aid of an ingenious device we call the Sony U-Matic.

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video camera onto a videocassette tape. Then, with the aid of a second U-Matic, you can print as many identical cassettes as you like. Or a duplicating centre will do the job for you.

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To: Pieter Glas, Sony (UK) Ltd. Commercial & Industrial Division, Pyrene House, Sunbury Cross, Sunbury-on-Thames, Tel: Sunbury-on-Thames 89581. Please tell me more about the Sony U-Matic videocassette system.

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Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

AVIATION

Guides the smaller planes home

actly into the cockpit instrument panel. The total system weighs only 15.5 lbs. Weather Scout II, and its companion Weather Scout II for light twin-engine or four-engine aircraft using a wing-pod mount, are part of a new family of weather radars for light aircraft. The new radar has a range of 90 nautical miles, with intermediate steps of 12, 30 and 60 miles, and scans weather conditions ahead of the aircraft in a 90-degree sector. It has RCA's craft designed to fit inside the leading edge of the aircraft's wing.

The system's transmitter, receiver and antenna have been integrated into a single unit for play.

RCA Avionics Systems, 8500 Balboa Blvd., Van Nuys, Calif. conditions for the pilot. Sits com: 91409, U.S.

PROCESSING

Sand cleans machines

THERE IS no danger of products being marked, as can happen with sandblasting or chemicals remaining on surfaces to harm future handlers, says Factory Cleaners of its special machinery laundry service.

Said to be the first hot fluidised sandbath service to be used as an industrial cleaning process in the U.K., the method was originally developed for use in the product finishing industry. The process has now been developed for the cleaning and stripping of electric motors, tools, cabling, electrical and electronic apparatus and various kinds of moulds, machinery and equipment.

Basically, the principle involves a sandbath furnace filled with fine foundry sand; an electric fan pressurises a system of manifolds in the base of the furnace with air, heated by several burners; the hot air heats and fluidises the sand reaching a temperature of 500 degrees C. The sand is circulated and heated through a gas burner and a second burner in the exhaust duct burns off any pollutants and impurities.

Sand in such a fluidised state allows a gentle transfer of heat to metal objects and gently removes paint, resins, epoxies, grease, etc., from objects without pitting or burning the original surfaces.

The capital cost of a firm of installing such equipment would not be economical unless it were used continuously and the installation of the unit at one of the company's premises in Clapham, South London, allows for the collection of products to

be taken to the plant for cleaning and their subsequent return to customers.

Cost will be governed by the time taken to clean objects—at present, it works out at around £45 per hour but, says the company, a relatively small number of customers could go together in one immersion.

More information from the company at 42 The Croft, Harpenden, London NW10 4NR (01-865 6615).

Sieving special products

BECAUSE OF the stringent needs of the pharmaceutical and allied industries—especially with regard to drugs, baby foods, etc.—where standards of product safety and cleanliness are paramount, Russell Finex has made a special version of its Finex 22 vibratory sieving machine.

Electric-polished stainless steel is used for all contact parts and in keeping with the overall sanitary design, the outer surfaces of the unit are also in easy-clean stainless steel.

Features retained in the new model include multi-decking, speedy demountable and easily remounted sieve frames which, says the company, together with other accessories ensure the installation of the unit in liquid or powder type applications.

More on 01-930 9923.

LEISURE

Gives a first-class finish

IT IS not simple to provide a good finish for do-it-yourself swimming pools. But in the opinion of the National Research Development Corporation, the kit produced for this market by Newbourne Mouldings overcomes the problems.

It consists of a one-piece moulding and the required water-treatment plant which is simply inserted into a prepared hole, the pool shell being manufactured by vacuum-forming.

In this process, a sheet of thermoplastic material is heated

and forced into the shape of a mould by evacuating the space between them. Ideal for making products from sheet when high strength and good appearance are mandatory, the process results in a pool shell with no joints or seams, having integrally moulded steps at each corner, with a hand grip running around the perimeter. This gives both safety and rigidity.

Excavation has been kept to a minimum not to blunt the enthusiasm of the DIY clientele and the maximum size of the hole

would not exceed 16 x 9 x 3 feet, digging being minimised by raising the pool some 18 inches above normal ground level and using soil removed from the excavation for landscaping.

NRDC has provided funds to help in the production of the moulds for what is one of the biggest vacuum formers so far manufactured in the UK.

Details of the processes used are available from Cascade Pools and Leisure, Forth Road, Sheerwater Industrial Estate, Woking, Surrey GU21 5SG. 04882 89881.

Sun heat for the pool

SOLAR HEATING industries in the UK are going through a period of consolidation and more gradual expansion, while in several European countries, there is a virtual explosion of new installations, with the result that UK companies are finding a ready market for solar panels outside Britain, according to Robinsons Developments.

This company, which collaborated with ICI in the development of solar panels based on a special formulation of the latter's polypropylene plastics material, has produced panels and systems designed specifically for relatively low temperature applications, such as swimming pool heating.

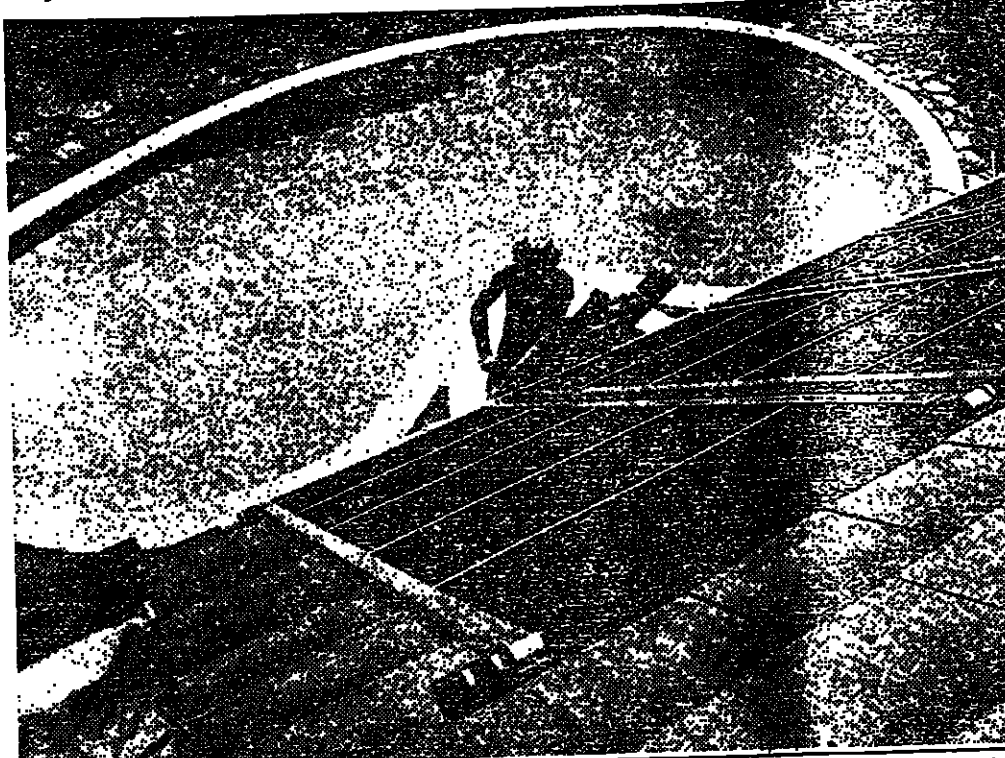
With overseas orders accounting for some 80 per cent of business, the company has recently secured orders from the UK where 50 outdoor

Sweden and Switzerland for very large systems for municipal pools, the Swedish orders—for two pools—being funded by the Swedish Building Research Council which has entrusted Linköping University with the task of establishing detailed performance data.

One of the installations, with some 300 sq metres of Suncell panels supplied by Robinsons, will be set up at Skellefteå in Northern Sweden, which is at the same latitude as southern Iceland. But the long summer daylight hours will be significant in providing extended heating periods and the panels are expected to save the equivalent of 150 MW hours per year.

A comparable investigation is being carried out by Robinsons at the Royal Institution in London on October 16.

Further details of the Suncell panels and the basic heating systems in which they are fitted can be obtained from Robinsons Developments, Robinson House, Wincall Industrial Estate, Wincall, Chester CH2 3 8LH. 0682 81777. The Royal Institution is at 21 Albemarle Street.



At this swimming pool, nearing completion at a house in Hitchin, Suncell Oasis sun heat collectors are being installed to provide free heating to the water in the pool, which will be particularly acceptable if the present somewhat chilling weather continues.

TRANSPORT

Units go over the waves

THE TRANSPORTATION of fruit and frozen fish from the Canary Islands to Britain, is being effected in packaged refrigeration units—originally designed for road transport—which have been newly adapted for seagoing container duty by Transfric, Cranbourne Road, Gosport, Hants, PO12 1RJ (07017 58131).

The company's standard DEL 90 series transport refrigeration unit is fitted with a diesel engine driven compressor which also has a standby electric motor drive for emergency use and for quiet overnight running at the depot, but for the marine version the electric motor becomes the principal drive and it is rated for plugging into the ship's electrical supply system. The diesel engine is then reserved for standby duty and for use when moving the container by road.

This self-contained refrigeration package is mounted through a hole cut in the container front bulkhead which is recessed so that the equipment does not extend beyond the overall container frame, as required by ISO legislation. The condenser section is exterior to the box while the evaporator section protrudes into the refrigerated space.

Because of the hazards of salt water corrosion, spray, etc., exposed metal surfaces have been finished with marine quality paint, corrosion-resistant steel condensing coils have been additionally treated and the totally enclosed waterproof electric motors have been externally protected. Electrical wiring and control components have been housed in separate, watertight compartments and the wiring looms also specially protected.

Each of the containers will hold about 500 cartons of about 12 tonnes of fish which is deep frozen to minus 20 degrees C before loading; the temperature maintained throughout the voyage, and the unit is fitted with automatic defrost using the Transfric hot gas reverse cycle system.

COMPONENTS

Fuse will not blow

RELAYS, semiconductors and electronic modules are often protected against overloads with wire fuses. Where operating voltages do not exceed 33 V and currents around 400 mA, Siemens is offering PTC resistor-fuses, which assume such a high resistance when exposed to overloads or overtemperatures that no damage can be done.

On termination of the fault condition it is no longer necessary to replace a blown fuse. The system is immediately ready for operation again.

The new fuses, which require no special case, can be inserted directly in the circuit they are to protect. The actual protective element measures 7 mm x 7 mm with a maximum thick-

ness of 2.5 mm and has 25 mm long terminal leads. The reference temperature at which the resistance suddenly shoots up is 120 degrees C. The continuous current in the protection condition remains below 100 mA. On termination of the overload condition the normal operating condition is automatically restored.

The new overload protector PB390-F51 is already being used to protect remote control relays in slide projectors. Such equipment is particularly prone to electrical and at the same time thermal overloads and can thus be very easily damaged.

Siemens, Postfach 103, D-5000 Munich 1, Federal Republic of Germany.

SECURITY

Alarm for small users

PEOPLE LIVING alone in flats, maisonettes and other small dwellings are often afraid of burglary attempts.

Now, with the use of a small box alarm fitted to the inner side of an external door, illegal entry is immediately signalled by a magnetic switch triggering off an alarm which, says the maker, emits sufficient noise to alert neighbours in the average block.

Designed for easy installation, the box (6 1/2 by 4 1/2 by 2 1/2 inches) can be attached with ordinary wood screws or double-sided tape supplied by the makers, and is powered by a small battery.

Further from Delta Security, alarm which, says the maker, emits sufficient noise to alert neighbours in the average block 0287 32033.

For EVERYTHING carbon dioxide Distillers CO₂

TEXTILES

Mouse finds spinning problems

INCREASINGLY textile machinery is now being monitored in various ways and this data collected in computers. With an machine speeds increase, the higher efficiency makes itself felt, the practice is bound to increase.

The Swiss instrument maker Zellweger Uster (English agent: G. W. Thornton and Sons, 10 Eden Place, Chesham, Bucks, MK3 1AU. Tel. 061 428 4271) has developed a simple and inexpensive system of monitoring spinning machines of all types.

What is called a "mouse" travels along the rim of a reel and registers any stoppage or encounter. After completing a traverse of the reel it returns and should the traveller still not be functioning, the mouse emits the stoppage to a microcomputer. This stores the information and gives details of ends down to each spinning frame equipped with this new piece of instrumentation.

HANDLING

Carries lesser load

A LIGHT duty overhead chain conveyor which has been designed to cope with loads of up to 15 lbs per basket has been introduced by Fisher Engineering, 100, Birmingham New Road, Edgbaston, Birmingham B15 2JH. 051 46672 4141.

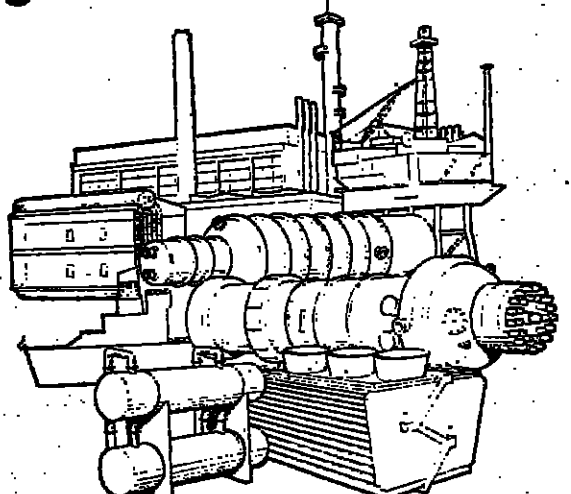
Called the Flowmaster, it is offered as an alternative to the company's Flowlink which handles 45 lbs loads. The new addition to the range is said to have the same robust and durable qualities as its bigger brother and, among its many features, are the use of a small radius bend, the totally enclosed chain for protection and the versatility where a number of applications is concerned. The conveyor is driven by 1 1/2 hp motors and a wide range of different speeds is offered in both single and multiple forms.

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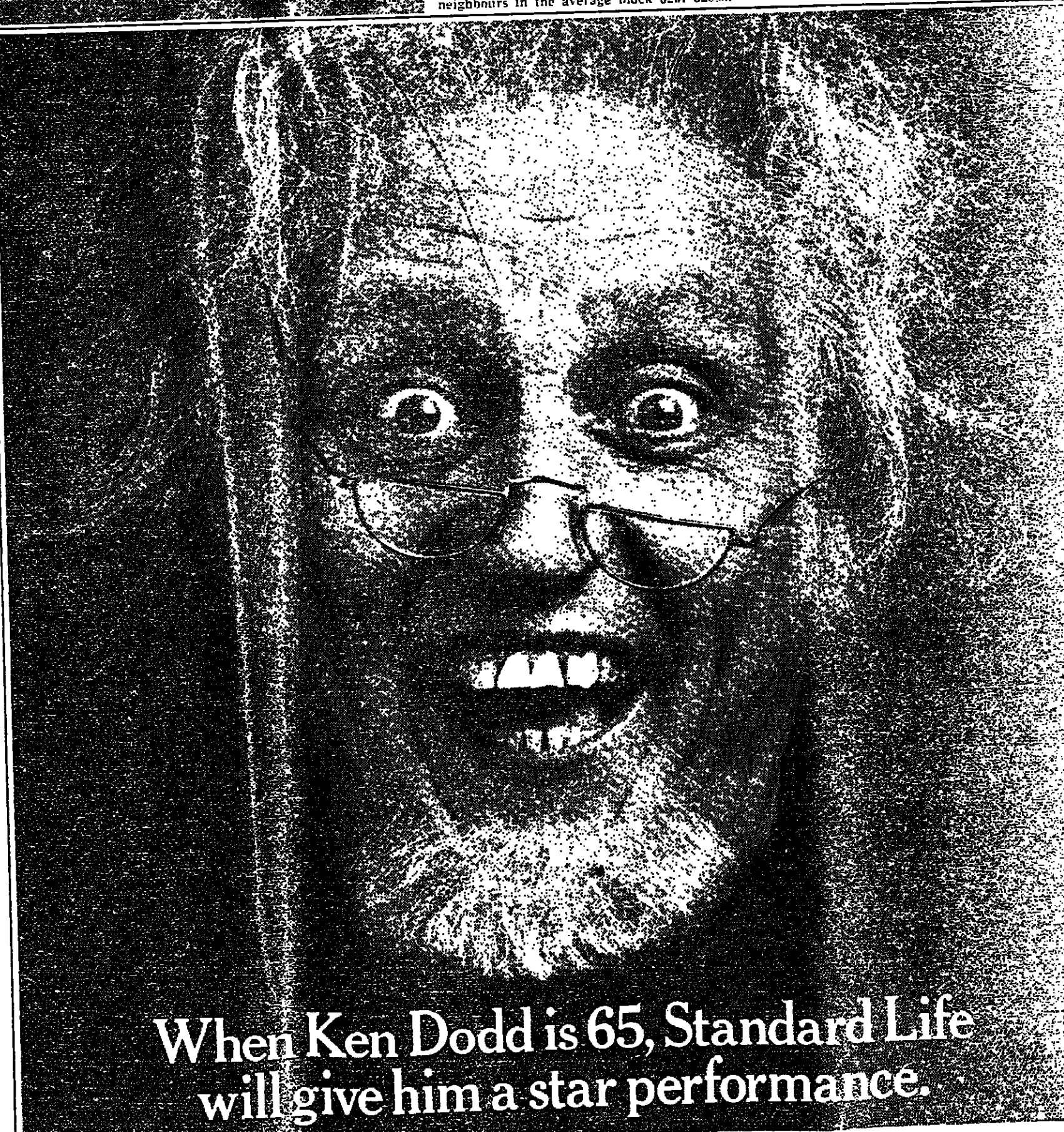
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10
LOMBARD

Unearned income

BY ANTHONY HARRIS

NO APOLOGY is needed for a second column concerned with the Bank of England's ingenious control on the banks. The squeeze with a friendly embrace, for this mechanism is still widely misunderstood; but an apology is perhaps due to Messrs. quoted here yesterday as an example of City euphoria over the present monetary comedy. Ever since the Budget Messrs. have fairly consistently taken an optimistic view of the problems before us, so it is not inconsistent to be optimistic when we return to Square One. One may not agree, but it's a point of view.

Let us turn our attention, however, from the gilt market to the banks, now struggling profitably to meet the new requirements. The profit arises from the fact that since the squeeze positively want to get rid of interest-bearing liabilities, and to impose on discourage-ment on would-be borrowers, wide spreads are very much in the spirit of the squeeze. Disinflation can be fun.

Combination

Indeed, if you consider the whole combination of bank margins, bill market, and a long tap for the pension funds on terms which are like a happy dream the whole package is but of an unconcerned City benefit. The discount houses may, of course, have taken a bit of a knock, but they can look forward to the profitable discount of Duke's Hill. The interest rates come down step by step. Since this is the outcome of what was called an eyeball-to-eyeball confrontation, it is a bit like pelting your enemies with roses. Beverly market may be caught in bear apoplexy, but not the Bank's friends in the City.

However, apart from what may be called the unearned income of the City, what is the effect on the economy? There has been much talk of the pressure on the banks to cut out their lending; but this statement is in fact highly misleading unless it is surrounded by a positive forest of ifs and buts.

Some of the reservations are to do with the distortions in the gilt market. If you have been holding a deep breath while you are measured for a corset—lending money to the discount market and borrowing it back, building up your leasing subsidiaries ahead of demand, and indulging in all the other little tricks which are easy to suspect and hard to prove—then it may be a positive relief to let that breath out again. All this contrived lending can be replaced in due course with genuine and profitable lending. In other words, the more the Bank is distorted before the corset was imposed, the

easier the fit now is. Some banks at least look pretty relaxed. However, even if the figures were not distorted at all—and they certainly were—the take-off in the gilt market itself is an enormous help. The sum is simple enough. In a normal regime, excessive monetary growth is heavily penalised, so that its growth can be taken as more or less fixed. The amount of bank lending permitted then depends quite directly on the success of funding. The more money the Government extracts through sales of securities, the more the banks can reduce by new lending. Therefore a gilt boom means still more good news for the banks. The whole system gives a new meaning to the words "unearned income."

However, let us suppose for a moment that the banks do have some problems getting inside the limits laid down for them. This is popularly supposed, will lead to a really tight credit squeeze, with stony-faced managers up and down the country refusing loans. But to whom? Shareholders? Then one can imagine a growth of trade credit, so that it is the priority industrial borrower who asks for the loan. Personal borrowers? Within quite substantial limits, the most credit-worthy can borrow without much trouble. A whole waitlist of credit cards. It is really not so quick and easy as it sounds to limit lending in a regime in which credit is kept relatively cheap. Much easier to sell investments from bank portfolios, or persuade depositors of the superior attractions of local authority deposits.

Imposition

The conclusion which suggests itself to me at least is that the imposition of the corset will resolve the crisis if and only if the crisis was as deceptive as the measure which is being used to cure it. If the apparent explosion of the money supply was all a matter of uninvested institutional money, it will now vanish. If the apparent explosion in lending was largely got up by the banks in preparation for the corset, it will vanish too. But if there really is a surge of loan demand or a drop in the savings rate, the package merely cleared the statistical ground for the next crisis, to one about the real economy and the balance of payments. The one real problem which may have been solved is the build-up of corporate funds; that money will be held off through national insurance contributions, with no joy for anyone. But then, if the Bank is distorted before the industry does not enjoy the able advocacy of the Bank of England.

IT IS THREE YEARS since we have had such an amenable season for moving the summer's bedding plants. Most of them, petunias and marigolds especially, prefer a dry sunny season once they are established. Since 1975, they have been hit by hot dry weather from the fortnight before and after they ought to go out. Occasional rain and clouds for the next week or so will see them well established and growing away smoothly before it heats up again.

If you still want a few quick and bright bedding plants for the edges and odd corners, consider the convenient Nemesis. It is well up to the cramped life in boxes which growers have to inflict on it. It is quick to flower, so you could still sow some more seed to follow on in early August. Seedsmen are stating proudly on the packet that they have almost eliminated the blue-black, white and pale pink for which I used to buy them. You can now have "sunset hues" as never before, but at a height of about nine inches they are not too awkward to place. Though they last less

long than petunias, unless you dead-head them thoroughly after their first flowering, they are bright and a good buy, too, for a sunny window-box.

One useful point. Half-hearted gardeners sometimes complain that their bedding plants never bloom and flower, instead, wither and die. The culprit, so too, are stocks bought as ready-made plants. If you cut out the first few flower buds, you will force the plant to spread and get on with the job. In a dry June, especially, they will otherwise try to bolt to seed when too small and give up the struggle. Cope with that, and you will have no problems.

Remember, however, as you pay your 40p for 10 straggling Snapdragons that now is the urgent moment to be sowing cheap seeds and cutting the bill for wall-flowers, Sweet William and the rest. Search above all for the deep royal blue forget-me-not, as easy as a cross from a seed packet and yet less often sold as a mature plant in the autumn to

imprudent gardeners. The sky blues are quite pretty and will dominate a batch of self-sown seedlings. But the dark bell-shaped Forget-me-not is quite another customer. Sow him now in a damp shaded line, about

quarter of an inch deep and space him out after a fortnight above the ground. Avoid direct sunlight and you can then move the young plants among the tulips, replacing the petunias in late autumn. This is worth while at this time of year. For new gardeners, needing height and colour quickly, the biennials, the Canterbury Bell, tall silver thistle, grey-leaved verbascum, are a blessing.

When if you have missed the bedding-out "bus" completely?

GARDENS TODAY

BY ROBIN LANE FOX

Never fear, there is still time. Sown now, nemesis will make it by late July; so too will the admirably deep blue, pug-nosed, one taller form of which, often sold as Blue Bonnet, shows August at their loose heights of two feet. The Californian poppy, however, which is still sold as eschscholzia, is not the easiest thing to transplant and should be reserved for outdoor sowings only. In June, you are advised only to start off those from which seedlings may be moved a few days later to pot and to bed, so I should avoid anything with

window-box with something a tap root. Ten-week stocks are a good buy. They live up to their name and would now be aimed at early September. Even if you are buying all the bedding plants in boxes, it would pay to keep a few of these running on for later weeks.

Why do some gardeners grow these things so much better than others? Usually because they have not allowed their plants to be checked in their smooth progress. If you go out and buy the tallest stock in the brightest boxes, you are falling into a trap. Lower plants, more widely spaced, are the best buy. When you plant them out, put water into each hole before you put the plant in on top. First, it is the last out and will see the roots through a drought. Personally, I give liquid manure to almost every annual except the Nasturtium which runs to leaf when too well-fed. Bedding plants in Britain are almost always started off too thick, too, with the weather and the timing, but commonsense, dead-heading and a little cunning will leave their mark even here.

Willie Carson's mounts give him an edge on Pat Eddery

PAT EDDERY and Willie Carson, who are locked in the closest battle for the Jockey's championship, have both picked up a win in the 1000 Guineas at Newbury and Beverley today. Each has some

middle distance filly in the making when she nearly succeeded in beating the Queen's Arms in the 1000 Guineas at Newbury.

Any improvement on that running should see Procella capable of conceding 10 lb in Pat Eddery's mount the once-raced Martingale, a half-sister by Lutetia to the higher-classed horse and sire, Mount Hagen.

Whatever their fate, with Martingale in the Grandstand Sweepstakes, trainer Peter Walwyn and Eddery should have at least one winner at the Yorkshire course's evening meeting, Town Lady, a chestnut Town

RACING

BY DOMINIC WIGAN

likely looking mounts with the balance apparently in favour of Carson.

The popular little Scotsman, who goes to scale at 7 st 10 lb compared with Eddery's 8 st 2 lb, could have three or four winners. Salamis, Bolide and Procella are likely to form the backbone of his success.

Sir Michael Sobell's so far unsuccessful Salamis, among the runners for the Twynford Stakes, strikes me as the best bet of the trio. She is a well-made chestnut filly by Sun Prince out of Bandurilla, who has already produced that top-class miler, Salfust. Salamis did not run too badly at Newmarket this spring when sixth to Seraphima in the Ladbrooke Nell Gwynn Stakes.

With less to do this afternoon and the probability of good to fast ground in her favour, Salamis might get off the mark at attractive odds. I take her to win at the chief expense of Nesting, another locally trained filly who ran well at that Craven meeting.

Procella, one of two William Haggis-trained fillies partnered by the ex-champion at Beverley, struck me as a useful

U.S.-British airliners 'a golden opportunity'

FINANCIAL TIMES REPORTER

BRITISH AIRWAYS has again called for the nationalised British Aerospace to go ahead with a joint venture with Boeing to build the next generation of civil airliners.

The call came in a memorandum to the airline's management from the main board. It said the Boeing proposal for its 757 medium-range jet would open a "golden opportunity for British air transport."

Rolls-Royce would provide the engines for such a project, and British Airways said yesterday that the supply of engines alone could provide jobs for 10,000 engineers. It could also earn £4,000m in foreign currency. In total, a British Aerospace

link with Boeing would provide five times the work for British aircraft and aero-engine companies than would be likely to result from any co-operative European project, the memorandum said.

Work must start immediately on airports for the 1990s. Lord Porchester, chairman of the south-east economic planning council, said yesterday in a letter to Mr. Edmund Dell, Trade Secretary.

Without an immediate start on the long lead times for new airports, traffic could well exceed airport capacity within 12 years, he said.

Lord Porchester was commenting on the Government White Paper on airport policy.

Poor roads cost £480m a year

BY LYNTON McLAINE

POOR ROADS cost Britain £480m a year in accidents, Mr. Stuart Mustow, West Midlands county surveyor, said at the Institute of Municipal Engineers' annual conference in Bourne-mouth yesterday.

More than one in four accidents had road conditions as a contributory factor. It was the sole cause of 2.5 per cent of accidents in a survey of the Thames valley conducted by the Government's Transport and

Road Research Laboratory in 1976. Each accident cost society an average of £1,890 and, if the Thames valley results were extended to cover the whole of Britain, the total cost of accidents partially caused by poor roads would be nearly £500m.

Accidents on British roads increased last year to 348,186, compared with 339,673 the previous year, and £24,950 in 1975. Road maintenance costs

have remained steady at between £550m and £650m since 1969. They reached a peak of £880m in 1973 to 1974, and are expected to rise much above £550m up to 1982.

Mr. Mustow said there was no clear relationship between road maintenance spending and accidents, but he gave a warning about the need for caution in cutting spending plans. Authorities should not take too restrictive a view of maintenance in order to save money.

ENTERTAINMENT GUIDE

<p>CC—These theatres accept credit cards by telephone or at the box office.</p> <p>OPERA & BALLET</p> <p>COLISEUM, Credit cards 01-240 5238. Reservations 01-516 1111. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>COVENT GARDEN, CC 240 1066. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>GLYNDEBOURNE FESTIVAL OPERA, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>SAIDERS WELLS THEATRE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p>	<p>GLOBE THEATRE, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>HAYMARKET, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>HER MAJESTY'S, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>KING'S ROAD THEATRE, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>LONDON FOLLIES, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p>	<p>ROYAL COURT, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>ROYALTY, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>SAYOY THEATRE, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>SHAFESBURY, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p> <p>STAND, 01-437 1592. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30. THE TEN TIMES TABLE, 10.30.</p>
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TV/Radio

Indicates programme in black and white.

BBC 1

6.40-7.55 am Open University. 8.25 For Schools. Colleges. 10.45 For and Me. 11.00 For Schools. Colleges. 1.00-1.10 Baggage. 1.45 News. 2.01 For Schools. Colleges. 2.25 Tennis: The John Player

Tournament. 3.33 Regional News for England (except London). 3.55 Play School. 4.20 Boss Cat. 4.40 Newsround Weekly. 5.10 Roobarb. 5.15 Regional News. 5.20 News. 5.30 World Cup Grandstand: Italy v West Germany. 7.35 The Likely Lads. 8.20 Feature Film: "The Hell-

fighters" starring John Wayne. 10.15 The Spinners. 10.50 World Cup Grandstand: including coverage of Poland v Argentina. 1.20-1.25 am Weather/Regional News. All Regions as BBC 1 except at the following times: Wales—4.40-5.10 pm Billdowar. 5.10-5.20 Wales Today. 1.15 am News and Weather for Wales. Scotland—5.15-5.20 pm Scottish News. 1.15 am News and Weather for Scotland.

12.55 Help! 1.00 Sounds of Britain. 1.30 Crown Court. 2.00 After Noon. 2.25 General Hospital. 3.20 The Rolf Harris Show. 3.50 The Electric Theatre Show. 4.20 Channel 4. 4.45 The Secret Pony. 5.15 News. 5.30 World Cup: Austria v Holland. 5.45 Coronation Street. 6.15 World Cup: Brazil v Peru. 7.05 News. 11.15 The Sweeney. 12.15 am Close: Music by Rodrigo, painting by Velasquez. All IBA Regions as London except at the following times:

ANGLIA 12.55 am. Anglia News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Anglia. 12.15 am. World Children's Day.

ATV 12.55 am. Newsdesk. 3.20 The Mrs. 3.30 The Sullivan. 4.45 ATV Today. 12.15 Ruffery.

BORDER 12.55 am. Border News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Border. 12.15 am. World Children's Day.

CHANNEL 1.15 am. Channel News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Channel. 12.15 am. World Children's Day.

GRAMPAN 1.15 am. Grampian News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Grampian. 12.15 am. World Children's Day.

GRANADA 1.15 am. Granada News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Granada. 12.15 am. World Children's Day.

LONDON 1.15 am. London News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About London. 12.15 am. World Children's Day.

NORTHERN 1.15 am. Northern News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Northern. 12.15 am. World Children's Day.

SCOTLAND 1.15 am. Scottish News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Scotland. 12.15 am. World Children's Day.

SOUTHERN 1.15 am. Southern News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Southern. 12.15 am. World Children's Day.

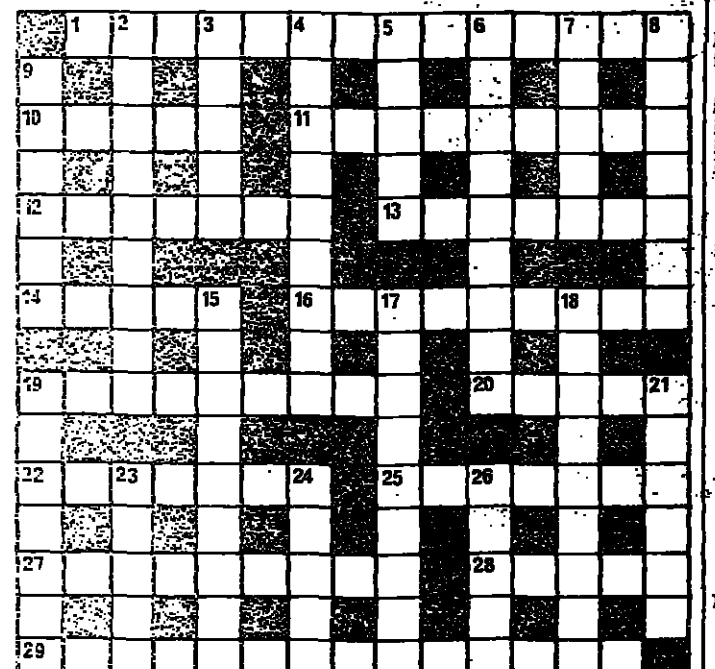
TYNE TEES 1.15 am. Tyne Tees News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Tyne Tees. 12.15 am. World Children's Day.

ULSTER 1.15 am. Ulster News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Ulster. 12.15 am. World Children's Day.

WESTWARD 1.15 am. Westward News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Westward. 12.15 am. World Children's Day.

YORKSHIRE 1.15 am. Yorkshire News. 2.00 House. 3.20 The Andy Williams Show. 4.45 About Yorkshire. 12.15 am. World Children's Day.

F.T. CROSSWORD PUZZLE No. 3,692

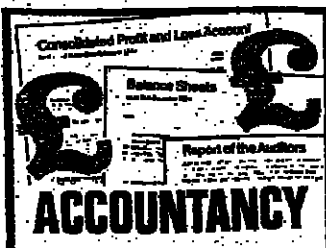


- ACROSS**
- 1 Sovereigns once worth half a crown apiece (7, 3, 4)
 - 10 Scruffy race in Scots lochs (5)
 - 11 Upset by husband's bonus (9)
 - 12 Actor playing part of swearing soldiers we hear (7)
 - 13 Turner at Lord's may be top (5)
 - 14 The best 100 sheets of paper (5)
 - 16 Back salesman strictly to keep going (9)
 - 18 Undertake to have TV under control (3, 2, 4)
 - 19 Stronghold loses objection for luck (5)
 - 21 Absorb life's sun some other way (7)
 - 23 Rambling boy embraces desecrator (7)
 - 24 Get better confession of in-law from beggar (9)
 - 25 Flood for doctor to acknowledge (5)
 - 26 Asserted oneself professionally when hard up (6, 3, 5)
- DOWN**
- 2 Student of The Man Within (8)
 - 3 Confine to bed in store (3, 2)
 - 4 Unauthorised books could make you happy (8)
 - 5 Welcome trials in faint (5)
 - 6 Time trend was directed towards damage (9)
 - 7 Month added to projecting stage (5)
- SOLUTION TO PUZZLE No. 3,691**
1. BACKLOGS
2. STUDENT
3. CONFINED
4. UNAUTHORISED
5. WELCOME
6. MONTH
7. PROJECTING
8. STAGE
9. DAMAGE
10. SCRUFFY
11. UPSET
12. ACTOR
13. TURNER
14. BEST
15. SHEETS
16. BACK
17. SALESMAN
18. UNDERTAKE
19. STRONGHOLD
20. OBJECTION
21. ABSORB
22. LIFE
23. RAMBLING
24. EMBRACES
25. DESOLATOR
26. ASSERTED
27. PROFESSIONALLY
28. WHEN
29. HARD

The Management Page

EDITED BY CHRISTO

THE AUDITING profession in Britain is being subjected to increasing criticism. This has partly been occasioned by comments from Department of Trade inspectors who have investigated the collapse of publicly-quoted companies, and by the public comment when companies have missed profit forecasts made at the time of take-over bids.



In order to help restore public confidence in the standards of auditing, the major accountancy bodies have joined forces to set up an Auditing Practices Committee (APC). One of the major objectives of the APC is to produce a series of recommended standards on auditing principles and practice.

But more fundamental criticism is being levelled at the whole idea of company audits. For example, doubts have been raised on whether there are any benefits to be derived from statutory audits and, if there are, whether they outweigh the costs involved. (A recent estimate has put the cost of auditing the accounts of all stock exchange quoted firms in 1975-76 at over £100m).

Among the questions being asked are: does the audit function provide any safeguard against fraud by company directors? Does the audit report contain valuable information to the users of accounts? Does having a qualified audit report — implying some doubt on the auditor's part — make it harder for a company to obtain additional finance?

Study data

In order to provide some data on the question of the audit function's value, a study has recently been made into the impact of qualified audit reports on investment decisions. Specifically an examination was made to see if share prices were affected if a set of accounts were qualified. If share prices did not move at all then this would indicate that the stock market was not placing any importance on the auditors' report; this, in turn, might be taken to imply that the auditing function is of only limited use.

The study showed that three types of qualified audit reports do contain information which investors consider as significant in their portfolio decision making.

It was also made clear that

investors do differentiate between the various types of qualification. This is backed up by evidence from elsewhere, which has shown that bank officers place considerable emphasis on some types of qualification when making lending decisions. There is no doubt that certain types of audit qualification considerably impair companies' creditworthiness and will make future financing that much more difficult.

Two suggestions for the auditing profession arose from the study. One is that some consideration should be given to releasing qualified reports at an earlier date, possibly when the earnings and dividend announcements are made (audit reports are usually published some weeks after the earnings announcement). At present, investors react to an earnings and dividend announcement and then have to revise their judgments when they learn, some weeks later, that this figure has been qualified in some sense by the company's auditors.

Secondly, because investors do differentiate between the reasons for qualification, some consideration should be given to explaining these reasons more fully. This would enhance the information value of the audit report.

Ideally, the reason for the qualification should be very specific and include estimates of the amounts of money involved (such as probable degree of underprovision for doubtful debts).

This suggestion is strengthened by the currently widespread criticism about the lack of information contained in a qualification.

In recent years there has been a large increase in the number of qualified audit reports in Great Britain. For example, a recent survey found a total of 176 qualified audit reports in the year ending June 30, 1976. Other surveys, based on recent periods have shown similar

The battle to restore public confidence in auditing

BY DR. MICHAEL FIRTH

figures. There are three major reasons for this big upsurge in audit qualifications.

First, the liquidity crisis that hit British industry in the mid-1970s left many firms with significant cash flow problems, so they have required substantial banking support. This reliance on banking support has often led to an audit qualification.

Second, increased adverse publicity has been given to companies that have been made bankrupt even though they possessed clean audit reports in their last published accounts. For example, many auditors

times the auditor states little more than that he cannot say, in his opinion, that the accounts show a true and fair view.

2. *Going concern.* The recent liquidity crisis in the U.K. has left many firms dependent on their bankers for continued survival. This especially applies to property companies and badly fringed banks, who were badly caught out with the property and stock market slumps of the mid-1970s. The accounts are qualified on the basis that if the bankers withdrew their support the companies would be forced into bankruptcy.

Impact of Audit Qualifications on Share Prices

Type of audit qualification	Qualified reports		Control group	
	Movement in share price %	Companies which suffered falls in share price	Movement in share price %	Companies which suffered falls in share price
True and fair view	-2.1	80	0.0	47
Going concern	-4.1	89	0.0	49
Asset value	-5.0	82	0.0	54
Subsidiary's audit	-0.1	67	0.0	47
SSAP	-0.7	69	0.0	50
SSAP but concur	0.0	48	0.0	52
Continuing qualification	-0.3	64	0.0	53

have come under critical fire from Department of Trade inspectors investigating the sudden collapse of major stock market quoted companies. The adverse publicity, and the growing concern over possible legal actions, have led the auditing profession to be more cautious, and more qualified reports have resulted.

Third, the issuance of Statements of Standard Accounting Practice (SSAPs) — by the Accounting Standards Committee — has increased substantially in the past few years, so that the chances of companies not complying with at least one of them — and thus receiving a qualification — have increased. In a recent study of the impact of qualified audit reports on investment decisions, seven major different types of audit qualifications were identified. These were:

1. *True and fair view.* Some-

3. *Asset values.* Audit qualifications of this type express doubts about the value placed on the company's assets in its balance-sheet. Typically, the assets which are involved include land and buildings (where valuations have been fairly volatile in the recent past), loans (where the solvency of the borrower is in doubt), debtors (bad debts provisions) and inventories (obsolescent stock).

The above three types of qualification may be expected to have some impact on investment decisions and share prices. For example, if an auditor qualified a set of accounts because of uncertainty over asset values, this might raise doubts in the minds of investors over the net worth of the company, and share prices could well be marked down. Unfortunately, audit reports are rarely detailed enough to give much information about the degree of uncer-

tainty; little information is usually given on the extent to which a company's assets and profits are overstated and its liabilities understated. This makes it impossible for investors to adjust share prices to the correct extent for the information contained in a qualified audit report, although some form of adjustment is likely.

4. *Subsidiary's audit.* Published accounts are sometimes qualified if the accounts of a subsidiary have either not been audited (usually when the subsidiary is based overseas), or have been audited by a different firm of accountants (the latter is only generally applied when the subsidiary's auditors are of an unknown standing).

5. *Statements of Standard Accounting Practice (SSAP).* Auditors will qualify accounts if they are drawn up in compliance with the SSAPs in force at that time. Opinions differ as to whether SSAP qualifications are meaningful — in that they have an impact on a company's share price. It could be said that they ought to have no impact on share prices, as the qualification relates to the method of accounting and not to whether the accounts show a true and fair view. This is the view taken by many industrial and commercial companies, which do not seem to be unduly worried about having their accounts qualified on this score. But there is the counter argument that, if SSAPs are not being followed, it is because the alternative accounting treatment being used reports higher profits and higher net assets.

6. *"SSAP but concur."* In a growing number of cases auditors are qualifying accounts on the basis of non-compliance with SSAPs, but at the same time stating that they concur with the alternative accounting treatment being used. Auditors agree with alternative treatments because SSAPs are produced with an "average" company in mind, and the specific firm being audited may be subject to significantly different trading circumstances.

7. *Continuing audit qualifications.* Many companies receive the same qualification every

The table shows the percentage movement in share prices (column 1) and the percentage number of companies which suffered falls in their share prices (column 2). Columns 3 and 4 are equivalent to columns 1 and 2 but relate to the "unqualified" control group. As postulated earlier, we might expect the various types of qualification to have different impacts on share prices.

The table shows quite clearly that "true and fair view," "going concern" and "asset value" qualifications all had substantial share price falls associated with them. For example, the share prices of "asset value" qualified companies fell on average by 5 per cent. This compares with a neutral share price performance of the control group. The 5 per cent price decline can be fairly attributed to the audit qualification — this being the only difference between the two groups. Column 2 shows that over 80 per cent of the "asset value" qualified companies suffered price declines upon the release of the qualified audit report. Clearly investors were using the audit qualification to alter the values of these securities.

Investors

In contrast, the other types of audit qualification suffered only very small reductions in share prices; these could be attributed partly to chance. It is interesting to note the difference between "SSAP" and "SSAP but concur" qualifications — the results suggest that investors do differentiate between these two types of qualified opinion and that auditors should always express an opinion as to whether they concur with an "anti-SSAP" accounting treatment adopted by a company.

From the results of the study it is suggested that audit reports should be released at an earlier date, and that much greater detail of the reasons for the qualification should be given. Although there may be practical difficulties in implementing these suggestions, there are almost certainly some steps that could be taken immediately, especially relating to the expansion of the qualified audit report, or on average, no further share price revision was needed. Because of this, the results for only one day, the day after the release of the annual accounts, are shown in the table.

Champions bow out

NO SHRED of doubt can remain about the impartiality of the staff who control the annual United Kingdom management championship. The administrators are mainly on secondment from International Computers which sponsors the National Management Game along with the Financial Times and the Institute of Chartered Accountants in England and Wales, in association with the Institute of Directors and the Confederation of British Industry.

So it can hardly be by the controllers' wish that, of the 16 teams which on Monday began the 1978 championship's semi-finals, no fewer than three come from IBM UK. And I gather that, although it has not been disclosed who has been drawn against whom in the four playing groups for the semi, the administrators have shunned the temptation to stick all the IBM teams into a single cage so that only one at best could survive for the £1,000 final in London on July 25.

Another group with three teams surviving, out of January's initial entry of 928, is ICI. One comes from the corporate laboratory in Runcorn. Both the others are from the subsidiary ICI Eley Ammunition. One of these finished the quarter-finals of the computer-based contest just ahead of the European management champions, John Chappell and Paul Webb of Rank Xerox, who have won the UK title for the past two years.

An oddity among the semi-finalists is an evidently one-man team from Lloyds Bank International which, in the current as in the previous rounds, has been playing by air mail and telephone from Japan. Given another win, this team will fly to London for the "on-the-spot" final.

The other surviving teams come from: Associated Nuclear Services, Epsom; Centre-File, Chloride Europe; Commercial Union Assurance; RIC Capacitors; Shell UK; Spillers Foods; the accountants Thornton Baker; and Vauxhall Motors.

Michael Dixon

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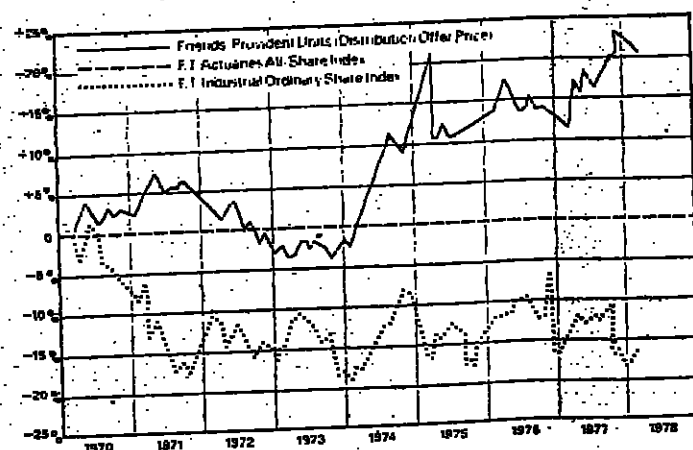
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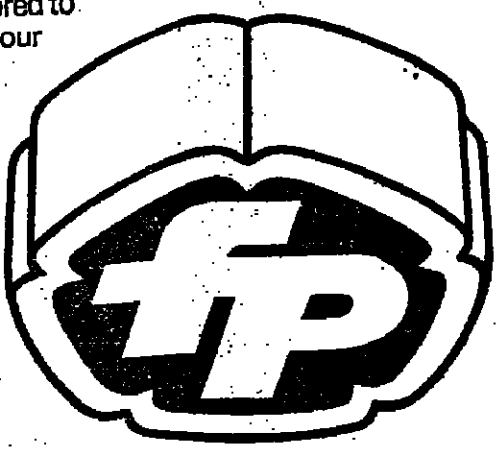
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BUSINESS PROBLEMS

No kidding

What, please, is the age at which a child can become a director of a private company?

Whilst there is no prescribed minimum age under the Companies Act, the legal position of minors (under the law of England and Wales) makes it prudent to consider carefully the potential consequences of appointing a minor to the board of a company. You would do well to study one of the standard works on company law in a public reference library, e.g. paragraph 20-5 of Gore-Brown on

Companies (43rd edition, Boyle and Sykes) published by Jordan and Sons Ltd (ISBN 0 85308 043 7).

Incomplete liquidation

Some months ago a private company went into voluntary liquidation and duly appointed a liquidator who in the absence of a tax clearance certificate will not complete the liquidation. The Revenue refuses to issue one on the grounds that one of the members (not a controlling one) and residing abroad must settle his outstanding tax affairs prior to the issue of such a certificate. Have the other members any legal means to compel liquidation?

We think that you cannot compel the completion of the liquidation in the circumstances you outline. It may be possible to get the Revenue to quantify its (maximum) claim so as to enable the release of some assets. But the members are basically faced with having to persuade the absent member to regularise his affairs. If the Revenue do quantify their claim the liquidator could apply to the Court for directions (e.g. as to payment into court) to enable some payment out to be made.

Lost tax file

Mine is a one-man business and I have been informed that my tax file has been mislaid. As the Inspector needs to re-construct the file from scratch, he has requested photocopies of documents and other details from my accountant going back several years. This is putting me to a lot of inconvenience, which certainly involves accountancy fees for work which has already been done once. Can you inform me as to my legal position?

We know of no clear authority, but suggest that you would be entitled to refuse to provide the copies sought so long as you cordoned the Inspector of Taxes an opportunity to attend at your premises to inspect and take

BY OUR LEGAL STAFF

copies of the relevant documents. In practice (and because such a visit may have attendant disadvantages) you may better course is to invite the Inspector to agree to pay your reasonable costs of obtaining the information.

No legal responsibility can be accepted by the Financial Times for the answers given in these columns. All inquiries will be answered by post as soon as possible.

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10
LOMBARD

June 16 for angling equipment makers. Peter Cartwright reports

Unearn'gackling the Orient

FOR A small but vital industry that during the war was singled out for protection to preserve its technology, fishing tackle makers seem to have been curiously indolent in defending themselves since against low-cost competition from the Far East. Only now is a survey being prepared with a view to lodging a formal complaint of dumping and it is being discovered that the industry is ignorant about even basic statistics like output, exports and imports, how many are employed and so on. The full impact of the transition from a craft dominated, labour intensive industry to a market oriented one backed by high production equipment is only just beginning to be realised, perhaps just in time.

With an estimated 3m fisher folk (for they are not all men, women and children are among them) angling used to be able to lay claim to being the biggest participant sport. The value of the market is a matter of guesswork. Some projections put it around £80m a year, including exports, with tackle makers providing perhaps £30m-£40m of rods, reels, lines, keep nets, floats, flies and so on.

Like most sports it is important to catch 'em young before some other stimulates their interest. The most lively section of fishers are those between 14 and 24, for after then family and other commitments come along. This year has been a poor one for new recruits. It seems.

Tackle makers complain that a disappointing season last year left a lot of shelves still full at the end of it, and they point to the competing claims among youngsters of the new craze of skateboarding and the inability of many school leavers to find jobs. But this does not appear to have had much effect in slowing the invasion of equipment from Japan, South Korea and Taiwan. Circumstances may

even have been operating in their favour by causing most people to shop down market among the cheaper varieties of tackle.

The expert anglers — the minority who compete in "match" sport — continue to shop up-market. They use the more expensive French and Swedish reels and top class British rods. Their custom is of great importance to British tackle makers because the match angler buys equipment throughout the year, whereas those in the mass market do not.

The general plight of the industry, however, can be traced to its structure and to the technological change from split-cane rods made largely by craftsmen to largely mechanically made glass fibre rods. Ten or so years ago, 6,000 or more were employed in the industry mainly making basic items like rods, reels, the lines that pass through them, and reels. There were a good many craftsmen working on their own or with a colleague, making custom built rods, and a very few major producers. Today their numbers have dwindled to perhaps a dozen or 15 rod makers of any significance, with Hardy Bros. at Alnwick, Northumberland easily the biggest and employing in total 200 even after recent redundancies. Not long ago there were four big producers of reels: now there is only one, an Edgar Sealley factory in Cornwall and, sadly, a loss-maker for its American parent, Gladding International. Market share has fallen from 75 per cent to 25 per cent. Another American, Shakespeare, is a substantial maker of lines, and there is the Swedish Abu company on Clydeside, a distributor as well as a manufacturer.

Redditch, 14 miles south west of Birmingham, is a traditional centre of fishing tackle manufacture (as it is of the allied



An angler with his tackle outside a London tackle shop.

business of needlemaking) and has felt the sharp thrust of technical changes and the developing challenge from the Orient the most.

This certainly seems to be borne out by the way in which imports have been moving ahead—from £1m in 1967 to £4m in 1975 and to almost twice that last year. On the other hand exports have not been standing still, having moved up from only £350,280 in 1967 to £1.5m in 1975 and to £2.7m last year.

But often it has been a case of "if you can't beat them, join them," and because UK makers cannot compete with the prices being charged by South Korea and Taiwan, makers of reels and blanks—bare rods—have imported them from these sources and from Japan, either selling them as completed tackle or assembling blanks for retailing by the angling shops. Even the biggest, like Hardy and Shakespeare, do this. So while cries of dumping are being raised, many in the industry are glad of the extra turnover this business represents.

In the popular and lower end of the market it is virtually impossible to match prices. The British equivalent of a Japanese

ings, a subsidiary of which, Millards, has for many years bought nearly 10 per cent of its reels from Daiwa for distribution and is also a substantial supplier of guide rings to the industry. What has deeply offended some other manufacturers is that the venture has received Government aid (it is in an assisted area)—helping our trade enemies to set up in our home market," as one put it.

And, indeed, Mr. Archie McCunn, managing director of the factory, makes no bones about the fact that he is aiming to get at least 6 per cent of the market in rods to justify the investment. On the other hand, he is quick to point out that the other objectives are to build up healthy exports to Europe and to make a contribution to import substitution. The 90 jobs already created are 90 more in an industry that has been shedding labour in the past eight months.

However, the British scene is far from being one of unrelieved gloom. Shakespeare, which went through a very bad patch eight or nine years ago and staggered on for three or four years until drastic re-organisation brought recovery, now employs 75, half as many again as 18 months ago. It is also moving into a brand new factory on the Redditch industrial estate where £50,000 worth of the most modern equipment has been installed. And Hardy is maintaining its 45-50 per cent export achievement, far higher than most, and has Japan among its top three markets.

These are the kind of performances others in the industry will need to emulate, for international fishing competitions are bringing greater appreciation of the advantages of the other fellow's tackle and breaking down the insularity of national industries by creating more unified designs.



UCB - Brussels 1977

The following statement by Mr. P. Foriers, Chairman, serves as an introduction to the Directors report. The Shareholders' General Meeting was held on the 13th June, 1978.

The hopes, which your Board had at the same time last year, that the situation would progressively improve, have unfortunately not been fulfilled. The economic situation again deteriorated sharply during the second quarter of 1977. Our Film Sector achieved a modest increase in sales, but our Chemical Sector suffered the opposite. Both of them ended the year with a loss, as their level of activity was too reduced for them to be able to absorb the inevitable rises in costs of every kind.

May I remind you that these costs are particularly heavy in Belgium, which is the centre of our organization, and are a special handicap for a group so dependent on exporting.

Despite the profits made by the Pharmaceutical Sector, the year 1977 finished with a loss of 397 million Belgian francs for the Group and 67.8 million for the parent company, UCB s.a. For the first time since the merger of 1961, UCB feels obliged not to pay a dividend.

The appropriate measures were speedily and energetically taken last summer as soon as the magnitude of the recession and the continuance of its unfavourable effects on the Group were clearly seen.

In the Film Sector these have led to reductions in numbers employed which, though they have worsened the results for 1977, will improve those of subsequent years.

Several other measures have already been taken or will be taken in the course of the year. Their objective is a sharp reduction in general overhead costs at all levels, and a re-organization of those production centres most affected by the crisis. They cover not only the two Sectors currently making losses, but also the Pharmaceutical Sector, which is making a profit, but where profits can and must be improved.

Thanks to the precautions previously taken, the financial structure of the Group remains perfectly sound, and gives us the necessary base for the recovery, which we are determined to achieve.

FINANCIAL HIGHLIGHTS OF THE UCB GROUP

	BF 1975	£	In million BF/£	BF 1976	£	BF 1977	£
Group net sales	15,306	191.3	18,594	276.9	17,164	273.2	
Cash flow	934	11.7	883	14.6	484	7.9	
Profit/loss after tax	-270	-3.4	184	3	-397	-6.3	
Investments during the year	1,444	18	827	13.6	613	12.9	

	BF 1975	£	BF 1976	£	BF 1977	£
Share of UCB in:						
Cash flow	724	9	689	11.3	397	6.3
Profit/loss after tax	-232	-2.9	139	2.1	-334	-5.3
Dividend: gross	156.25	1.95	175	2.87	—	—
net	125	1.56	140	2.29	—	—

Cash flow includes—
 — Depreciation taken in the profit and loss account. Depreciation on research expenditure amounting to 230 million francs in 1976 and 217 million francs in 1977 has, however, not been taken into account.
 — Investment grants received to the extent that they are not included in the profit and loss account.
 — Movements in provision for risks and losses in value taken in the profit and loss account.
 — Profit/loss after tax.
 Rate of exchange used:— 1975 f1=BF80.02
 1976 f1=BF81.02
 1977 f1=BF82.89

Copies of the 1977 Annual Report (in English, French or Dutch) can be obtained on request from:
 UCB s.a. Public Relations Department, Chaussée de Charleroi, 4
 B.1060 BRUSSELS—BELGIUM. TEL: (010) 322 537 12-20. TELEX: 21.280.

NOTICE OF REDEMPTION

To the Holders of

Phillips Petroleum International Investment Company

6% Guaranteed Sinking Fund Debentures Due 1981
 Due January 15, 1981

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Indenture dated as of January 15, 1966 under which the above-described Debentures were issued, Morgan Guaranty Trust Company of New York, as Trustee, has selected for redemption on July 15, 1978, through operation of the Sinking Fund, at the principal amount thereof, together with accrued interest to said date, \$938,000 principal amount of the above described Debentures. The serial numbers of said Debentures so selected are as follows:

DEBENTURES OF \$1,000 EACH

102	2014	3897	5376	6946	7904	9796	11640	12634	13161	14488	15215	16008	20232	21179	22992	23017
116	2026	3227	4331	5994	7923	9813	11652	12652	13182	14515	15242	16035	20259	21206	23019	23044
150	2038	3708	5409	7012	7938	9820	11663	12663	13193	14526	15253	16046	20282	21229	23042	23067
173	2122	3711	5414	7017	7940	9822	11665	12665	13195	14528	15255	16048	20284	21231	23044	23069
199	2123	3712	5415	7018	7941	9823	11666	12666	13196	14529	15256	16049	20285	21232	23045	23070
329	2282	3784	5428	7032	8001	9871	11681	12681	13211	14543	15270	16063	20291	21238	23050	23075
388	2291	3843	5433	7037	8006	9876	11686	12686	13216	14548	15275	16068	20296	21243	23055	23080
422	2292	3844	5434	7038	8007	9877	11687	12687	13217	14549	15276	16069	20297	21244	23056	23081
584	2387	3899	5489	7089	8059	9927	11737	12737	13267	14599	15326	16119	20347	21294	23106	23131
585	2424	3927	5517	7117	8087	9955	11765	12765	13295	14627	15354	16147	20375	21322	23134	23159
606	2423	3915	5505	7105	8075	9943	11753	12753	13283	14615	15342	16135	20363	21310	23122	23147
614	2507	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
615	2508	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
616	2509	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
617	2510	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
618	2511	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
619	2512	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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622	2515	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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624	2517	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
625	2518	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
626	2519	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
627	2520	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
628	2521	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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636	2529	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
637	2530	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
638	2531	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
639	2532	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
640	2533	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
641	2534	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
642	2535	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
643	2536	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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646	2539	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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648	2541	3999	5589	7189	8159	9987	11837	12837	13367	14699	15426	16219	20407	21354	23166	23191
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FINANCIAL TIMES SURVEY

Wednesday, June 14 1978

Energy for Industry

Aid to industry and commerce worth £25m was announced by the Government yesterday to encourage conservation and the efficient use of energy. It comes at a time when it is vital that the temporary surplus of crude oil does not disguise the potential problems surrounding future energy supplies.

Oil glut only a brief respite

By Ray Dafer

BRITISH PETROLEUM managing director, Christopher Laidlaw recently warned that the potential problems of world energy supplies were being "dangerously disguised" by the general surplus of crude oil. The so-called glut of oil supplies had been induced by the continuing economic recession and yet, even now, consumers were using oil at a faster rate than the level of new discoveries. The "bath" of proven oil reserves was slowly draining even though the taps were running, he said.

The warning might well have been applied to Britain's energy position. For there is a real danger that consumers—presented with abundant supplies of home-produced oil, gas, coal and electricity—may be lulled into a false sense of security.

Worse still is the prospect of British industry emerging from a comparatively short period of energy self-sufficiency in a com-

petitively weaker state than in recent years. Most of the other industrial nations dependent on large fuel imports will be forced (and helped) to adopt more efficient, energy-saving measures as costs inevitably rise. Their trade balance constraints will encourage such moves.

Although Britain will have substantial balance-of-payments relief from its self-sufficiency state, its energy consumers will not be shielded from rising prices. Oil prices are largely dictated by the main suppliers of free market crude, the Organisation of Petroleum Exporting Countries. North Sea oil and gas prices, and to a large extent the costs of coal and electricity, will continue to be influenced by OPEC's actions. And those actions, according to the latest Department of Energy forecasts, could lead to at least a doubling in oil prices in real terms by the end of the century.

In view of the large potential oil producing capacity that has still to be absorbed, it seems unlikely that there will be any major movement in crude prices over the next couple of years. OPEC may achieve a modest price rise in the next 12 months by trimming its production levels. But its bargaining power will remain weakened so long as the economic recession continues. After all, world oil demand has not yet recovered to 1973 levels.

Paradoxically, the high-cost development of North Sea crude, which owes so much to the big increases in oil prices in 1973-74, is now a contributory factor to the softening of crude oil costs. The UK sector of the North Sea is now yielding about

1m barrels a day—half way to domestic self-sufficiency. In 18 months to two years' time the output should be around 2m barrels a day. The North Sea and other non-OPEC areas like Alaska and Mexico are already adding around 3m b/d to world supplies.

British Gas Corporation is now getting virtually all the supplies it needs from the North Sea. Indeed, the development of the Anglo-Norwegian Frigg Field by a Franco-Norwegian consortium of companies is now providing the Corporation with an opportunity to extend its range of customers in the domestic and premium industrial and commercial markets. This competition is also putting pressure on the supplies, and price, of oil products.

Refused

Gas prices, which in the industrial and commercial sectors are likely to rise in line with oil prices, have been repeatedly challenged as being too low by the electricity and coal industries. So far Mr Anthony Wedgwood Benn, Energy Secretary, has refused to impose a requested "gas tax" although he has conceded that fuel pricing policies are among the most difficult problems that have been tackled by his advisory Energy Commission.

Sir Francis Tombs, chairman of the Electricity Council, pointed out to the Energy Commission earlier this month that the electricity industry was also facing increasing competi-

tion from British Gas in the long run the coal industry will have an even more important role to play in meeting energy demand. Increased nuclear-based electricity production and the development of alternative or renewable forms of energy will also be required once UK oil production begins to decline in the 1990s, or at least around the turn of the century. But just as important as these development programmes will be the need for energy conservation.

The National Coal Board, in another submission to the Commission, emphasised that the major market for coal continued to be power stations. Notwithstanding the increasing nuclear contribution to electricity generation the Coal Board's plans for the next five years provided for sales to power stations to increase from some 77m tonnes in the past financial year to over 80m tonnes. It was recognised, however, that the maintenance of such a market would be heavily influenced by coal's competitive position relative to oil. (The NCB is assuming that oil prices will broadly be maintained in real terms over the next five years.)

Cambridge Information and Research Services, in its latest Energy for Industry and Commerce report, states that industrial consumers can expect renewed efforts from Coal Board salesmen in their attempts to win back business previously lost to oil as the time arises for plant replacement.

Coal had lost about 80 per cent of its industrial market in the past 25 years and today the industrial sector accounts for only 9m tonnes a year of sales. "It remains to be seen whether new techniques such as fluidised bed combustion and improvements in mechanical handling pioneered by the Coal Board can assist in winning back this lost ground," the report adds.

There can be little doubt that

Efficiency

Sir Derek Ezra, chairman of the National Coal Board, spelled out the importance of energy saving last December: "Failure to take vigorous steps to ensure improved efficiency of energy use in the years ahead, enabling the UK to achieve economic growth with a lower growth in energy consumption, might result in the longer term in the nation being forced to accept a reduction in the rate of economic growth." British industry might also be left less competitive against overseas manufacturers which had already taken conservation measures.

The Energy Commission, in its discussions, have reckoned on UK energy consumption by the end of the century being some 20 per cent below what it otherwise might have been without conservation effort. The lack of such a programme could add the equivalent of some 50m tonnes of coal to Britain's energy needs in the year 2000. Put another way, if that saving could be achieved overnight, British industrial and commercial users

of energy could wipe over £1.2bn off their annual fuel bills.

Last year industry and commerce spent £5.8bn on energy as against £5.02bn in 1976. The iron and steel industries accounted for about £1bn worth of the 1977 total. It is estimated that there could be a 10 per cent rise in the amount spent by industry and commerce this year.

But that bill could have been significantly higher but for the conservation measures taken so far. It is indicative of the way that major fuel users are now beginning to view the efficient use of energy and are seeking ways of cutting out waste that between 2,000 and 3,000 energy managers have been appointed (or at least designated) by UK companies. No less than 40 energy managers' groups have been set up around the country.

Any attempt to quantify their overall success to date is frustrated by numerous factors. No-one is quite sure how much the economic recession and normal plant modernisation and replacement programmes have contributed, in an incidental manner, to past energy savings. But a reasonable guess would put the conservation achievement since 1973 at over 5 per cent.

A preliminary analysis of information gathered through the Department of Industry's Industrial Energy Thrift Scheme suggested that annual energy savings which were open to economic benefits of conservation measures provided sufficient incentive for capital projects.

Then on December 12, Mr.

Wedgwood Benn launched a £320m programme which, he said, could lead to savings worth about £700m a year within a decade. That Government investment was concentrated in the public sector.

In March, Chancellor Denis Healey announced in his Budget speech that the Government was extending its aid to conservation measures in the private sector. The following day the Prime Minister unveiled a £240m package of support for home insulation projects.

Since then the Departments of Industry and Energy have been working on ways of pushing along energy "save-it" projects in industry and commerce.

The results of part of this work were revealed yesterday with the announcement that the Government is making available up to £25m over the next two years to encourage more efficient use of energy in industry and commerce.

The scheme is available to companies throughout the UK wishing to improve their heating plant or the insulation of their premises. Grants of up to 25 per cent will be available for work aimed at replacing or modernising boiler plant, and insulating systems and at installing or improving combined heat and power systems.

These aid schemes may be recognition that in the current economic climate energy users may not be in a position to carry out all of the conservation measures that are desirable. It might also suggest that energy saving is still not receiving the degree of attention it deserves.



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The Electricity Council, England and Wales.

industry's problems but more and more manufacturers are finding that having their Electricity Industrial Sales Engineer working alongside them is making a big difference to their futures.

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ENERGY FOR INDUSTRY II

Oil versus gas

THE COAL and electricity industries are continuing to press for the imposition of some form of gas tax to bring the prices of gas supplies more in line with those of other energy resources. Sir Francis Tombs, chairman of the Electricity Council, again made the point at a meeting earlier this month, of the Energy Commission—a body set up to advise the Government on energy policies.

The Government, he claimed in a paper submitted to the Commission, had favoured the gas industry. British Gas had exclusive access to North Sea gas and this enabled the Corporation to buy their gas supplies at an annual cost some £1bn less than if they paid prices related to the cost of coal and oil.

Glamour

The glamour of North Sea exploration and production has tended to disguise the problems oil companies are now facing with their downstream activities. The North Sea has given British oil suppliers and consumers welcome security; output from the UK sector is now running at about 1m barrels a day—roughly half domestic consumption levels. By 1980 the North Sea production will make Britain one of the few industrial nations totally self-sufficient in oil (and, for that matter, energy in general) although oil refiners will continue to import a proportion of its needs in order to arrive at the correct blend of crudes for product requirements.

On the other hand production from such sources as the North Sea, Alaska and Mexico is adding appreciably to the traditional supplies of the Organisation of Petroleum Exporting Countries at a time of sluggish economic growth worldwide. Consequently the oil industry is embarrassed by a serious oversupply problem. The lack of growth in its main markets over recent years has left com-

panies with a good deal of refinery over-capacity, particularly in Western Europe, for instance. In the event companies have taken steps to reduce over 80m tonnes a year of refining capacity in the European Economic Community over the past 12 months or so, and still there is about 35 per cent too much primary distillation capacity.

Against this background OPEC, the arbiter of world crude oil prices, is becoming increasingly restless about the combined effect of the world recession and oil glut on its own earnings power. It is a measure of OPEC's predicament that it seems to be cutting its output to around 26m barrels a day although it could produce 10m b/d more than that figure.

Oil prices must rise. The questions facing the oil industry, whole nations and fuel buyers alike are when, and by how much? There have been many warnings in recent months that we are living in something of a fool's paradise: that by the early or mid-1980s industrial nations could again be relying on OPEC to substantially increase output. The ball would be back in the exporters' court. Many fear that they could use this regained strength to impose very large increases in a bid to make up for past lost earnings. The Department of Energy expects oil prices to at least double in real terms over the next 20 years.

How soon, and how fiercely the price rises will be applied will again largely depend on the state of economies, the pace with which non-OPEC oil sources are exploited and the degree of energy conservation measures applied by Governments and major consumers.

The Department of Energy's monthly Energy Trends report gives some indication of the problems facing the oil industry in the UK. The average price of heavy fuel oil sold under new or renewed medium sized industrial contracts in the fourth quarter of last year stood at £56.40 a ton, lower than in the previous two quarters and barely 2 per cent higher than in the last three months of 1978. Viewed on the same basis gas oil prices at the end of last year stood at about £55.50 a ton, again down on the previous two

quarters and just £3.40 a ton more than in the fourth quarter of 1976.

Taking the average price of various fuels delivered to large industrial customers, the cost of heavy fuel oil is seen to have risen by 43 per cent in the three years from the beginning of 1975 to the end of 1977. In the same period, gas oil prices rose by 49 per cent. But these increases fell far short of the rising trend in the other fuel sectors: electricity prices rose 55 per cent, coal prices rose 71 per cent and gas prices by a massive 177 per cent—a leap which indicates that even without a gas tax the Gas Corporation has been taking its own price adjustment measures.

Guide

The figures are merely a guide; prices vary widely around the averages and the statistics can be quite dramatically influenced by the renegotiation of a major contract. Even so, they do show that oil product prices have been lagging, and the trend has continued this year. In some cases prices have been falling. (Petrol is now said to be as cheap in real terms as it was in 1973).

Mr. John Greenborough, managing director and deputy chairman of Shell U.K.—one of the major suppliers of oil products in Britain—recently reported that fierce competition by companies seeking to maintain market shares resulted in a serious erosion of proceeds. The U.K. group's annual report for 1977, when it made a loss of £11.3m on its operations, states that this competition "held product selling prices down below costs". There is plenty of evidence to suggest that it is not only competition between oil companies that is holding down prices. The strong marketing drive by British Gas in the industrial and commercial sectors is also having a major impact.

The reason is simple. The Corporation will have much more North Sea gas to sell in the future. Indeed, its supplies could increase by 50 per cent in the next few years. The Anglo-Norwegian Frigg Field, which was recently commissioned, should add some 1.5bn

cubic feet a day to supplies which are now running at about 4bn cubic feet a day. Shell/Esso's Brent Field should begin producing marketable natural gas in 1980 or 1981 when it will add at least a further 500m cubic feet to UK resources.

Then there is the prospect of new supplies being received from other fields in the central and northern sectors of the North Sea. Gas produced in association with oil in the Piper and Tartan fields will eventually be sent ashore via the Frigg gas line while fields to the north-east of the Shetland Islands may well be linked to the Brent gas trunk line.

A number of studies have been commissioned by the Government in a bid to find ways of collecting relatively small pockets of gas from other fields. At one stage it seemed that a major £5bn gas gathering pipeline network might be built but recent studies have suggested there is currently insufficient reserves to justify such an investment. (The position might change if oil companies make some important new discoveries or if Norwegian producers agree to share the UK facilities).

So alternative methods of gas collection are being evaluated. They include possible offshore liquefaction of gas; conversion of offshore gas into chemicals; and the use of gas to generate electricity which could then be sent ashore through submarine cables.

The problem facing the oil industry, Government and British Gas is to find a solution which does not lead to a glut of supplies in a relatively short period. If this happens the Corporation could be forced into selling gas too cheaply, to energy users who do not really need to burn a premium fuel. That is the Dutch Disease the gas industry talks about.

The Gas Corporation is in an awkward spot. For on the one hand it must provide its customers with an assurance that North Sea gas will last well into the next century but, at the same time, it must be careful in conveying the message that there is not enough to squander. "We have a large, but limited amount of gas to sell," is how Dr. Eric Ciatworthy, director

for industrial and commercial gas, describes the position.

The Corporation states that in spite of the economic conditions that have clearly made the search for new customers more difficult than it might have been, marketing achievements are on target. But there is still a good way to go. In the past six years the state undertaking has sold between 800m to 1bn therms to the new premium market; it hopes to sell further supplies approaching those figures by 1982.

Undoubtedly this will provide the oil sector in particular with a good deal more competition although a major—but confidential—new study has encouraged British Gas in that it shows the potential premium market to be much greater than planned expansion.

The premium market is seen to encompass industrial and commercial customers who need a high grade fuel which can be

easily controlled with a minimum of pollution. British gas maintains that virtually all of its firm contracts are being confined to this market at a price akin to the going rate for gas oil. As a result, premium customers fixing new gas supply contracts are paying some 18.5p to 18.5p a therm—a far cry from the average of 10.10p a therm being paid by large industrial consumers at the end of last year, according to Energy Trends.

That lower figure illustrates the fact that many long-term contracts had still to be renegotiated at current fuel market related prices. Those who have renegotiated in recent months have faced large rises, typically 20 to 40 per cent although there have been cases where gas supply prices have risen by over 100 per cent.

Indeed, the increases have prompted a number of companies, which had been receiv-

ing interruptible supplies from these fields. So the pattern has been set. Over the coming years British Gas will be paying much higher prices for its North Sea supplies with output from the more northerly fields appreciably more expensive than southern gas. Industrial and commercial buyers of gas will find the fuel becoming increasingly dear as well, although just how expensive will largely depend on oil prices.

For British Gas is now linking the price of its industrial gas contracts to the scheduled oil price quoted by the three UK majors, Shell, Esso and British Petroleum. Oil price rises will trigger escalation adjustments in the gas contracts. Whether the Government needs to apply a further gas price regulator in the form of a gas tax, must be questionable. Ray Dafter

Coal needs to be taken seriously

IT IS a measure of the dramatically increased importance of coal that it should now be taken seriously as a major energy source for industry. The trouble is—the National Coal Board would argue—it is not yet being taken seriously enough.

First, the good news. The oil price rises of 1973-74 found a coal industry in this country which was being slowly run down—though it remained the major coal producer in Europe. Investment had been at low levels, insufficient to bring new projects on stream to sustain constant levels of production.

The "Plan for Coal," agreed between government, unions and NCB in 1974, changed all that. Greatly increased investment was approved, and the industry began to develop multi-million pound projects like the Selby colliery and the Belvoir collieries, both to cost around £500m. Coal was on the road for new markets.

Its old markets, however, remained the most important. Coal is still the major fuel for the electricity supply industry, which takes around 60 per cent—70-75m tonnes—of its annual output of around 120m tonnes. As the NCB likes to remind us, we all burn coal—in the form of electricity, or "coal by wire."

The second largest customer of the NCB is also industrial—the steel industry, which burns coal in the form of coke. The steel industry presently accounts for around 14m tonnes of the NCB's output.

General industry and the domestic coal burning market are of roughly similar importance to the NCB, both burning around 10m tonnes a year. However, the industrial market is the one where the Board believes growth can be found.

The major problem—at least in the short and medium terms—is that none of these markets presently looks buoyant. Steel is obviously in the doldrums, and the 14m tonnes now being taken is a decrease of over 3m tonnes from two years ago—and no one can say with confidence that the decline will not continue. The electricity supply industry's take for England and Wales has gone up in the present year to 75m tonnes, from last year's figure of around 70m tonnes—but that is unlikely to last.

Central Electricity Generating Board officials say that much of this year's take will have to be stockpiled, meaning a reduced demand next year, probably back down again to 70m tonnes.

Sluggish

It seems that the general industrial market stays sluggish for two main reasons—a continuing supply of oil at a price not much above—if at all—that of coal, and the capital costs involved in switching from oil- or gas-fired equipment to coal.

These problems are difficult, if not insuperable. While gas and oil look attractive, why go to coal, which is usually more troublesome to handle, dirtier and offers little or no price advantage. The only real argument which the NCB has—and it is not an inconsiderable one—is that by switching to coal fired equipment now, the industrialist is safeguarding his future.

The argument runs like this. Oil may remain relatively stable in price for some years yet, but by the mid-1980s, it will begin to get dearer as production is cut back to prolong supplies. By the end of the century, supplies themselves will begin to run out (assuming there are no more very large discoveries of oil; they would have to be very large indeed, bigger than the North Sea fields, to make much difference).

Gas is, of course, even cheaper than oil. But it has possibly an even shorter life span (though in its case, there is a greater likelihood of substantial new discoveries in the North Sea, which might change the picture), and the NCB argues that North Sea gas will virtually be exhausted before the end of the century.

So the sales pitch is based on the long term, and on the possibility—always a fairly strong one—of disruption in oil supplies. So far, it has not appealed to a significant number of industrialists, and their take of coal has continued to decline. In short, it seems that the NCB is being presented with an embarrassment of riches, as the miners, inspired by the productivity bonus scheme, produce more coal for shrinking or static (or, in the case of domestic coal, marginally rising) markets.

Much of this is now more or less publicly discussed by the NCB, and is accepted with a rueful shrug. A senior NCB marketing man was told at a recent conference on coal that he would need all the sense of humour he evidently possessed, and he did not demur. What keeps the faith of the NCB alive that coal will fully come into

its own is the prospect which are predicted for it at the end of the century. If they take the shape they might, then there will indeed be a revolution. Towards the end of last month, the Government announced that it would fund most of a £43m programme to achieve the substitution of coal-derived fuel for natural gas and oil by the end of the century. The major research programmes are concerned with liquid solvent extraction—producing oil from coal; fixed composite gasification, or gas from coal; and supercritical gas-liquid extraction, or chemical feedstock from coal.

Optimistic

Introducing this package of measures—which also included research into fluidised bed combustion, which means making steam much more efficiently—Mr. Alex Eadie, a junior Energy Minister, said that "King Coal was back in its rightful place again." Mr. Eadie, an ex-miner, took an obvious delight in the fact that coal would—if the research proved successful—be the prime source of energy for the UK in the 21st century, as it had been in the 19th.

On his—and the NCB's—optimistic assumptions, the NCB

will have to produce at least the 170m tonnes a year which is its target for the year 2000, and then some. It has been calculated that the oil-from-coal market could take around 80m tonnes by itself, possibly more. So the industry must expand now—since lead times for major new collieries are lengthening continually—in order to be prepared for the rush.

"This does not mean—as you may have guessed—that energy will be cheaper in the future. It will inevitably be more costly; indeed, oil from coal and gasification, to say nothing of the even more esoteric schemes, only becomes feasible when costs for our present commodities like oil and gas go up—to at least double their present levels. Coal is expensive to get, and it will be more so either as miners demand more pay for one of the "hardest" jobs, or as very costly remote control equipment replaces miners underground. However, it does mean that when the oil and gas run out, as they are bound to do sooner or later, there is a substitute fuel proven with reserves of at least 300 years. Beyond that point, speculation becomes not only heroic, but silly.

John Lloyd

Healthy exports of standby equipment

ONE OF the more fortunate after effects of the miners' strikes and the three-day week was the welcome boost which it gave to the UK companies making standby generating equipment.

Many companies began to think that power cuts would become an annual feature of the British industrial climate, and so took steps to buy secondary generating sets. The market thus broadened quickly from those organisations like hospitals and offices with major computer centres to many companies which previously had regarded standby power as a convenience rather than a necessity.

The substantial home market thus created enabled the British manufacturers in the field to mount and sustain a very high level of export sales. The UK has remained probably the major supplier of standby generators in Europe with total sales of around 60,000 generator units a year.

Many of these generators are exported, particularly to Germany where they are made into full sets with foreign power units attached. However, the total number of sets made up in the UK complete with power units is about 30,000 units of which about 90 per cent are exported.

The three major UK manufacturers of generators split the home market about equally. Newage Engineers of Peterborough claims to have slightly the largest share followed by Markon and Hawker Siddley. Total production of generator units in the UK is of the order of £60m a year.

which supplies units for the higher rated sets and Lister and Peter which supplied smaller units. Adapted engines from Ford, Leyland and Cummins making standby generating equipment are also widely used.

Last year, demand for UK made generators outstripped supply and Newage particularly suffered a long backlog because of a previous labour dispute. Although delivery schedules have been shortened, the forward orders for the industry still look healthy. UK manufacturers have been helped by low labour costs compared with those of competitors in say, Germany, and have been able to keep a healthy volume of business at a time when orders worldwide have been slackening.

Most standby units currently sold are operated by diesel engines, but in the range of 1,000 kW and above, especially where the set is used as a main power source, turbines are increasingly being used.

The strong emphasis on standard products in the lower range from 1kW to 1,000kW means that customers need to make a very careful appraisal of their needs before making a purchase. For failure to make the right decision can prove costly and result in a completely unsuitable installation.

If, for example, the unit is underpowered it may fail to cater for the installations' demands, or alternatively it may absorb excessive capital by being more highly rated than is necessary.

It is important for a purchaser to strike a nice balance between the average demand expected to be made upon the set and the peak loading. Clearly it should have enough power to cope with the peak. But on the other hand it should not generally be run at less than about 65 per cent of maximum and the peak loading. This is because a diesel engine tends to become

pens that the majority of interruptions to the mains supply do last only for a split second, such a unit needs to be fast reacting and highly reliable. One such system supplied by Anton Piller, the German firm, uses an alternating current motor coupled to a direct current generator which supplies a battery. As soon as a power failure occurs, the two units change roles and the battery powers the direct current generator, which drives the alternating current motor turned generator to supply current to the computer.

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A source of energy that will last for 300 years.

At the present rate of production, Britain has proved coal reserves which will last at least 300 years.

This puts Britain's Coal Industry in a strong position alongside strictly limited oil and gas supplies, and the continuing development of nuclear power. With this assured energy supply, based on coal, British Industry can plan ahead with confidence.

The benefits of being the EEC's biggest coal producer.

Britain already has the biggest mining industry in the Community, producing as much coal as the rest of the EEC put together. To replace Britain's present coal output with imported oil would worsen Britain's balance of payments by £5,000m a year. This makes coal good for Britain as a whole.

Vast modernisation programme.

To ensure that these huge reserves are available when needed the NCB, under its "Plan for Coal," is already investing heavily in developing new collieries and in expanding existing pits.

We are still proving coal reserves in Britain four times as fast as we are using them. Selby, the biggest new coal project, will produce 10 million tons of coal a year. This and other new mines are keeping British coal-mining in the forefront of mining technology.

Problems-solving is our business.

Coal benefits all sorts of customers. With District Heating, coal fired plant supplies heating and hot water to whole communities. Individual users, from the biggest power station to quite small industrial plants and

individual homes, can benefit from the new knowledge and equipment on coal burning.

There's an enormous amount of know-how concentrated in the NCB Technical Service, covering all aspects of the efficient use of steam and hot water heating. If you need advice on making the best use of your existing plant, information on new equipment and techniques, how much new equipment costs and what savings it can give, ask the NCB. Expert help is available whether your business is large or small.

NCB
Doing Britain and British Industry a power of good.

ENERGY FOR INDUSTRY III

Power station policy

THE EVENT that has caught advanced gas cooled reactor the public's attention in the (AGR) station at Thameside while the CEGB will shortly be clear- ing the Winkfield inquiry into a ing planning permission for an- other English AGR. The proposed nuclear fuel reprocess- ing plant and the subsequent Government has sanctioned both stations at a total cost of about £1.2bn. Meanwhile design, development, and safety studies are going ahead on the U.S. pressurised water reactor design so that it can again be con- sidered as a possibility in com- petition with the AGR design before 1982.

The Windscale decision clears the way for future British nuclear power planning. Of much more immediate import- ance has been the recent Cabinet decision to launch a new power station building programme.

The contentious Drax B coal- fired power station has been given the go-ahead. That decision has been followed by a new policy towards the ordering of nuclear power stations. The South of Scotland Electricity Board is to have its next far and away from coal supplies.

Clearly, nuclear electricity will be the cheapest form of generation in the future pro- gramme. Even the most efficient coal-fired stations of 2,000 megawatts capacity will only be able to achieve a middle ranking in the hierarchy of British power station efficiency from now on.

Problems

The AGRs got themselves a bad name because of the problems over their detailed designs and the long delays experienced in their building programme. But now that the first two AGRs, Hinkley Point B and Hunter- ston B—are functioning some impressive efficiency figures are being obtained for power generation. They are producing some of the cheapest electricity in Britain. Worries about corrosion problems involving chromium alloy steel inside the reactors compelled the opera- tors to limit the output of the stations from start-up onwards. But the latest news from the CEGB is that those problems are likely to be much less serious than at first feared, which means that the efficiency of the two AGRs can be further improved by raising the operat- ing temperatures nearer to original design levels.

There is now more enthu-

siasm for the role of the AGRs than there has been on the British power scene for many a long year. When the three remaining AGRs now being built come into use in 1980-81 they will play a significant role by sharply reducing the total elec- tricity generation costs.

Of the three, Dungeness B is now ten years late—but the engineers say they can see "light at the end of the tunnel"—and the stations at Heysham and Hartlepool are each six years late. The total of some 4,000 megawatts of cheap power that will be their eventual con- tribution is sorely needed now as a contribution to cheaper electricity costs. The CEGB estimated recently that while the stations are still under con- struction beyond their planned completion dates the actual cost to the nation in terms of dearer electricity amounts to £350m. a year.

In short, the late completion of the three remaining AGRs is going to cost consumers at least a further £1bn in dearer electricity charges before they are ready.

Energy marketing is an essen- tial part of the national energy conservation campaign. In the past year the area electricity boards saw sales of electricity increase by 1.2 per cent in year when there was at times

up to 30 per cent excess generat- ing capacity. The aim of the work has been done for the boards is to harmonise the usage of electricity with available generating capacity. A "wise use" campaign has been run- ning with some success.

The annual Electricity Coun- cil report commented: "All our marketing activities have been influenced by the need to ad- vise and help people to conserve energy and to make wise use of electricity—at home, in shops and factories, and on the farms. The need will persist beyond our generation."

Advertising

The electricity authorities are emphasising how people can maintain and improve living standards while also conserving energy. Advertising by the Electricity Council has been stressing the importance of good insulation and the advantages, in particular, of lagging hot water tanks. Another idea plugged in the energy saving campaign has been the instan- taneous hot shower which is said to use less energy than the conventional bath.

The electricity authorities are co-operating with government departments, with the NEDO industrial sector committees, and with the universities to achieve greater energy savings

Standby

CONTINUED FROM PREVIOUS PAGE

encrusted with carbon if it is ordinary factory. However, a generating set can easily produce noise levels of well over 100 decibels if it is not soundproofed.

Sometimes a compromise has to be reached and the customer has basically two choices. The first is to install a unit designed to cope with the average load and arrange for the supply to some non-essential loads to be cut out automatically as total demand approaches the maxi- mum rating of the set. This can be satisfactory in some applica- tions but may cause inconve- nience, particularly if the set is used for standby power.

An alternative approach is to buy a bigger unit well able to cope with maximum demand but to arrange for a dummy load to be connected automatically if the unit starts to run lightly loaded. Clearly this second alternative is more expensive to install and to run.

It is really a question of the user making a policy decision about which services must always be maintained and balancing the extra cost of maintaining non-essential ser- vices against the risk and pos- sible inconvenience of their being cut.

Increasingly buyers and manu- facturers are having to consider the effects on workers of noise from standby or auxiliary power units. It is now accepted that a noise level of about 90 decibels is the maximum acceptable in an

even be cheaper to fit noise reduction systems to the set in the first place than face the pos- sible extra expense of rebuild- ing to isolate the unit at a later date.

Improvements to such peri- pheral aspects of secondary power units seem likely to be the main emphasis over the next few years. Electronic con- trol and the use of thyristors have probably yielded their main benefits on direct perform- ance for the time being, although marginal improve- ments to ratings will no doubt continue to be made. Otherwise the emphasis will no doubt con- tinue to be on ruggedness and reliability and easy access to servicing—all factors which fortunately favour the estab- lished UK suppliers.

Max Wilkinson

The need for insulation

AN IMPORTANT stage in the Government's campaign to encourage greater use of insula- tion material in the U.K. is reaching a climax, as the Homes Insulation Bill is rushed through Parliament.

The bill is an integral part of the battery of measures taken by the Government in the last two years, which aim to cut substantially Britain's annual fuel bill of £10bn.

But industry, which has also been coaxed into readiness to meet the higher demand expected for insulation material, is not happy with the profits trend in the industry so far.

Under the Homes Insulation Bill, which should become law shortly, grants will be available from local authorities for loft insulation and for lagging hot and cold water tanks and pipes. The grants will be worth 66 per cent of the total cost of the job, up to a £50 limit.

The Government is prepared to spend £15m on the grants in 1978-79 and £25m in 1979-80. The whole programme could take up to ten years to complete, assuming about 500,000 houses a year are fitted with insulation.

The Homes Insulation Bill, which deals with private homes, will become law about nine months after the Government announced a major insulation programme for the public sector. Mr. Anthony Wedgwood Benn, Secretary for Energy, said in December that the Government was launching a ten-year programme to bring public sector dwellings up to a basic mini- mum standard of thermal insulation. Over 2m houses would be treated, and the cost of the operation for the first four years would be just under £30m annually. Another £2m would be spent on improving the insulation of Ministry of Defence buildings. Hospitals and other National Health buildings would qualify for capital invest- ment of £35m. by 1982, while schools would come in for £70m by the same date.

On June 1, the Department of Environment announced thermal insulation standards for new non-domestic buildings. These standards will come into operation on June 1, 1979. And insulation in industry should be covered by a new Department of Industry scheme to be announced shortly.

Benefits

The Government has also quantified the estimated benefits of its insulation programme. Insulating 500,000 private houses a year could save 1m tons of oil a year, which at current prices would be worth £70m. Mr. Benn's energy programme, which dealt in large part with insulating State-owned build- ings, could save some £700m a year at current prices. Possibly the most comprehensive esti- mate is contained in a report, published in February this year, by the Buildings Working Group of the Advisory Council on Energy Conservation. This stated that by spending £1.8bn on insulating existing homes, fuel could be saved equal to about 15 per cent of current domestic energy consumption.

The report also pointed out how swiftly any capital invest- ment in insulation was repaid. Basic insulation of hot water cylinders could halve fuel con- sumption needs in a home, with a payback period of less than six months.

Department of Energy officials agree with these esti- mates. They say that a house- holder who fits a jacket to his tank, puts a draught excluder in his house, and fits insulation in his loft, can count on reduc- ing his annual fuel bill

eventually by about £100. And the cost of conversion may be under £50.

As well as drafting a mass of insulation measures, and quan- tifying the future benefits, the Government has also discreetly manoeuvred industry into a state of preparedness for the expected increase in demand.

Fibreglass, which belongs to Pilkington Brothers' Gipe In- sulation, part of Cape Industries, and Newalls Insulation, a sub- sidiary of Turner and Newall, are the three market leaders in the UK in the insulation business; all three have changed the structure of their business quite noticeably recently.

Fibreglass, which dominates the domestic insulation market, has spent roughly £20m in the last two years on a new plant at Pontyfelin in South Wales, to double its productive capacity.

Equipment

Cape has also spent heavily on new equipment, but has also made a number of signifi- cant acquisitions. It bought the contracting side of Newalls In- sulation from Turner and Newall in 1975, and this doubled the size of its insula- tion contracting side. More rationalisation and acquisitions followed, which led to Cape setting up a new Insulation Services subsidiary. Formed out of a merger between ICI Insulation Service and Pattison Insulations, the new operation is the largest company in the country to offer a comprehen- sive service for insulating domestic buildings.

Newalls Insulation has con- centrated on developing new products specially tailored for the anticipated expansion in the market. But it is also budgeting to spend about £8m on increasing productive capacity for insulation.

One of the problems faced by the Government is that demand for insulation material has not risen smoothly to meet the increases in productive capacity available throughout industry.

Mr. Ronald Dent, chairman of Cape Industries, gives the flavour of the feeling among industrialists in his 1977 annual report. "Thermal insulation is a market of which the division has a substantial share. So far demand has failed to grow at a rate expected by many follow- ing the increased cost of energy, but higher standards are steadily being introduced."

In the short term the prob- lem has become even more acute. In an effort to stimulate demand from the public, and meet industry's requirements, the Home Insulations Bill was introduced, a measure which, on the face of it, represents a sharp change from the Govern- ment's position some nine months ago. Then it thought that cost-saving benefits from home insulation were so self- evident that no financial incen- tives would be needed.

The new interventionist measures, however, have killed demand for insulation material temporarily stone-dead. The market is seasonal, with demand reaching a peak in the late summer and early autumn. But until the Government measures are through the Commons, and the grants are available from local authorities, it seems that very little insulation material will be bought.

Industry is convinced that the next few years will see a buoyant market for insulation material developing in the UK. But until then it will continue to reflect on the sluggish profits trend since the mid-1970s.

Christopher Dunn

GAS GETS ON WITH IT—



SAVING ENERGY FOR BRITAIN.

The more natural gas Britain uses, the less energy Britain wastes.

The explanation for this apparent paradox lies in the fact that natural gas is piped direct to the point of use, and burned directly as a primary fuel. It therefore achieves a very high overall efficiency.

And to maximise the benefits to the nation, British Gas is working hard to improve still further the efficiency with which natural gas is used.

Helping industry to save energy.

British Gas leads the world in industrial energy conservation. Our School of Fuel Management has

already helped many British companies to cut costs and save fuel. And working closely with manufacturers, we are developing new types of even more efficient gas burning equipment. In addition, we have instituted an annual Gas Energy Management award. This is given to the organisation which, working with the Technical Consultancy Service of the local Gas Region, has made the most outstanding contribution to the efficient use of gas over the year. (Last year, the combined savings made by the finalists in this competition amounted to nearly seven million therms of gas—

enough to supply a town the size of Dover for a year!) And this year, we're extending these awards to cover commercial as well as industrial users of gas—offices, shops, hotels, schools, hospitals and so on—so even more fuel will be saved for Britain's future.

That's what we mean when we say "Gas gets on with it." And that's why we can honestly say "saving energy for Britain."



BRITISH GAS

ENERGY FOR INDUSTRY IV

Potential for heat pumps

A GOVERNMENT study of heat pumps released a few months ago came to the rather surprising conclusion that no heat pump suitable for the biggest potential British market was available in the UK, nor could be expected without the expenditure of considerable research, development and life-testing resources. The surprise stems from the facts that the heat pump is a British invention, over 150 years old, of a kind which would appear to be ideally suited to the engineering skills of the country. Why has manufacturing industry neglected a machine with clear theoretical potential for conserving fuel?

The dominant reason is that it is much simpler to do what a heat pump can do merely by burning fuel. A heat pump is

an ingenious but nevertheless rather complex way of beating the second law of thermodynamics, to drive heat "uphill" from a cooler to a hotter source. It works rather like a refrigerator—and indeed its biggest market so far has proved to be space cooling in countries (such as the U.S.) which suffer from long hot summers. But the problems of translating the principles first enunciated by Lord Kelvin into robust machines at acceptable prices are more analogous to those of introducing new kinds of battery.

Heat pumps have been tried, with varying degrees of success, in such situations as the Festival Hall in London and the sewage system at Oxford. But the biggest potential market for heat pumps

would appear to be as an alternative to conventional central heating boilers in the home. This was the conclusion reached by a workshop of Government, industry and academic experts, organised by the Energy Technology Support Unit (ETSU) at Harwell. The workshop arrived at an outline specification for two types of heat pump—neither of which exists at present—for the domestic sector when fuel costs have reached a level that would offset the costs of an intrinsically more sophisticated technology.

In the sector of industrial process heating and cooling, three groups of applications for heat pumps were examined by the Harwell workshop. These were:

1. Cases where refrigeration is the main requirement but space heating could be provided from the condenser coils with minimum extra cost.
2. Processes involving phase changes—drying, evaporation or boiling.
3. Processes involving successive heating and cooling.

Such techniques include using the right tariff—many companies are paying more than they need to because they use the wrong tariff—training staff in energy conservation, and making more use of time-switches and thermostats to ensure energy is not being wasted when the office or factory is empty.

Establishing which good housekeeping techniques can be achieved by carrying out an energy audit. In addition, it is important that there is a top-level commitment to energy saving within a company and a full-time energy manager should be appointed. Checking tariff selection and use is a job which could be carried out by such an energy manager. Energy supplied by the gas and electricity Boards is charged to customers at various tariff rates, each tariff designed to provide energy at a cost appropriate to its use and to ensure an economic return to the Boards. Tariff selection is important at two points in the life of buildings. First when the building is designed or put into use and, second, during its normal use. Initially, the designer but

once the building has been in use for some time circumstances may alter and the tariff selected originally may prove to be uneconomical. If this is the case, the onus is on the customer to request a change and not the supplier to advise that a change may be beneficial. That is not to say that Boards never inform their customers of uneconomical tariff arrangements, but it is not one of their prime purposes.

In order to investigate a possible tariff change, it is necessary to collect data on energy consumption, plant size and loadings, and other relevant details such as building use, heating method and fuel, and occupancy patterns.

Tariffs

It is possible to use a computer to check energy tariffs. The Property Services Agency, for example, has a computer system in operation for checking electricity accounts for all the Government properties it maintains. The main reason for using a computer is that it can help to identify in detail only where tariff changes might be most advantageous rather than a blanket check on every individual property. And even when using a computer, the final decision on tariff changes requires the knowledge of qualified technical staff, experienced in assessing the many inter-related aspects

of energy requirement and their effects on tariffs. When a tariff change is made, the results should be closely monitored to ensure that decision was correct and that the accounts are accurate.

There are several factors which determine the amount of energy consumed in a company or organisation. These factors include design of buildings and service installations, standard of maintenance, and the way that users operate the installations.

Although it is difficult to change the main structure of an office or factory once it has been built, there are minor structural changes that can be carried out to save energy. A reduction in the total area of glass, for example, coupled with improved thermal insulation of the solid area, should reduce energy expenditure and add to the comfort of the occupants.

Most car owners would agree that regular maintenance reduces fuel consumption, improves performance and minimises breakdowns. The same is true of energy-consuming installations in buildings, such as heating, ventilation, air-conditioning, lighting and water supply systems. Regular servicing of all components—burners, control equipment, refrigeration plant, fans, pumps, cooling towers, etc.—should be arranged as part of a planned maintenance programme.

There are more complex heat pump cycles, in which the vapour "effluent" is recompressed to recover the latent heat of evaporation. In other words, this vapour itself serves as the working fluid. For example, the Hi-Trec (high-temperature recompression) cycle uses superheated steam; and the MVR (mechanical vapour recompression) cycle transfers heat directly by condensation.

With the novel Hi-Trec system, the effluent leaving the drier is split into two streams. One is compressed adiabatically so that its temperature and pressure increase, and at the higher pressure its latent heat of condensation can be transferred by a heat exchanger to the second stream.

The second stream, heated and dried in this way, is returned to the drier—at temperatures up to several hundred degrees C. Specifically it is tailored for processing, this system appears to be able to offer a high efficiency of heat recovery.

Light switching arrangements and groupings should provide enough flexibility to allow lights near windows to be switched off when only internal areas require lighting. Strict control should also be maintained over the operation of lighting installations to ensure that energy is not wasted when rooms are empty or only partly occupied. For example, when buildings are being cleaned before or after the normal office hours, lights are frequently left on where cleaning is not being carried out. Monitoring of lights during cleaning activities will usually, therefore, result in saving of energy.

The MVR cycle has been used industrially since the early years of this century, but only recently have advances in heat-exchange technology provided the lower compressor pressure ratios which, when combined with rising fuel prices, make the cycle economically attractive. The idea is that mechanical compression of the effluent vapour by the heat pump will raise its condensation temperature.

The whole vapour flow is compressed in this way and then passed through the heat exchanger in the evaporation vessel. Only a relatively small pressure ratio across the compressor is needed, so high heat pump efficiencies can be attained.

The MVR principle has been used in fairly large units, and is also finding a large market in small-scale desalination units. The workshop identified some industrial processes—such as the production of aluminium cans—in which successive heating and cooling operations might provide opportunities for the heat pump. Its conclusion was that each process must be examined individually and the opportunities for a standard product might well prove to be small.

The conclusions of the ETSU workshop were that, for the industrial sector, there should be:

1—More effort on heat pumps designed for output temperatures above 100 deg. C.

2—A market survey of the potential for the MVR cycle in the lower compressor pressure ratios which, when combined with rising fuel prices, make the cycle economically attractive. The idea is that mechanical compression of the effluent vapour by the heat pump will raise its condensation temperature.

3—More research on the Hi-Trec cycle and its application to drying processes.

The countries which appear to be putting the greatest effort into heat pump technology at present are the U.S. and West Germany. In the U.S., General Electric claims to have the world's biggest sale of heat pumps and has a major research effort at its Corporate Research and Development Centre in Schenectady. There the view is taken that the basic heat pump cycle has little potential for improvement, but more advanced cycles offer a great deal. An interesting political point is that GE is anxious to establish the heat pump as a solar energy device and not—as it is seen in the U.S. at present—as just another electricity-consuming device. It believes that the solar-boosted heat pump is the most energy-efficient cycle devised so far.

UK workshop on heat pumps, ETSU RI. Available from: the Department of Energy, Millbank, London SW1. No charge.

David Fishlock

To help bring these, and other, good housekeeping techniques together, companies need to carry out an energy audit.

An energy audit is basically a collection of consumption and building statistics embodied into a system to show clearly how and where each form of energy is being used. According to the Department of Energy's booklet on energy audits, the aim of such an audit is to quantify energy distribution and where possible relate it to production or other activities. The booklet suggests that companies examine the areas of high energy consumption, discuss with those concerned possible courses of action and choose the best after examining the financial implications. "Get the production manager, engineer, and cost accountant to work together as a team," it says.

Audits

It gives the following examples of energy audits:

- 1 Improving the standard of maintenance of thermal insulation, instrumentation, combustion equipment, etc.
- 2 Checking automatic control equipment and if necessary adjusting the settings.
- 3 Carrying out plant efficiency trials.
- 4 Altering processing schedules to see if greater output can be gained with the same amount of energy, or if the same output can be gained with less energy.

The Department's booklet also suggests that, when preparing a campaign to save energy, it should involve management, trade union representatives, and employees, and keep them all informed of progress.

Moreover, it is essential that energy-saving measures are properly organised, fully agreed with the departments concerned in their implementation and are closely monitored and controlled by the manager responsible for energy saving. All staff involved in the running of buildings, the engineering services involved with this, should be aware of energy policy and the need to minimise energy consumption consistent with safety and comfort levels. For example, it is vital that staff responsible for the day-to-day operation of boilers, ventilation plant and other mechanical services, as well as lighting and electrical installations, are properly trained in their operation.

There is a considerable amount of help available from the Department of Energy and professional energy consultants to help companies achieve reductions in energy consumption. But a considerable amount of energy can be saved by a commonsense approach to its use in office or factory.

David Churchill

On these studies will be published where it is thought they will prove useful.

In addition to this the Government is considering introducing building regulations requiring the provision of appropriate controls on heating systems. If regulations are introduced they will apply to the installation or replacement of heating plant in industrial buildings.

Industry accounts for roughly 40 per cent of all the energy used in the UK and this means a total industrial fuel bill of about £600 a year. Mr. Anthony Wedgwood Benn, the Energy Secretary, has said there is strong evidence to suggest that

Good housekeeping

DESPITE THE widespread publicity given to energy conservation in recent years it still comes as a surprise to many managers that approximately 10 per cent of fuel consumption and bills can be saved by application of relatively simple, "good housekeeping" techniques.

Such techniques include using the right tariff—many companies are paying more than they need to because they use the wrong tariff—training staff in energy conservation, and making more use of time-switches and thermostats to ensure energy is not being wasted when the office or factory is empty.

Establishing which good housekeeping techniques can be achieved by carrying out an energy audit. In addition, it is important that there is a top-level commitment to energy saving within a company and a full-time energy manager should be appointed. Checking tariff selection and use is a job which could be carried out by such an energy manager. Energy supplied by the gas and electricity Boards is charged to customers at various tariff rates, each tariff designed to provide energy at a cost appropriate to its use and to ensure an economic return to the Boards. Tariff selection is important at two points in the life of buildings. First when the building is designed or put into use and, second, during its normal use. Initially, the designer but

Target

Where finance is made available, the pay-off can be considerable. British Petroleum, for example, is planning to spend £32m on energy conservation at its oil refineries over the next four years, but it is hoping for a saving of some £33m a year as a result. The company has set itself a target of saving 15 per cent of its energy consumption—based on 1973 levels—by 1980.

BP's annual energy bill runs into hundreds of millions of pounds and the advantage to the company of conservation is therefore considerable. The Department says it is much harder to persuade a smallish concern, which is low on energy consumption—say, 5 per cent of total costs—to make a real effort on conservation. It has been found that this sector of industry is not always prepared to make even basic housekeeping savings, let alone to put money into conservation.

Capital expenditure can be used to introduce new, energy-efficient plant to insulate or otherwise modify existing machinery and to finance energy recovery equipment. For example, it is now possible to recover heat from industrial

processes where cooling is required and then use it to heat office or factory buildings. This can be done in the case of plastic injection moulding where refrigeration is used to chill mould cooling water, and one plastics factory in Staffordshire claims to be saving over £15,000 a year using a heat pump.

As part of its campaign, the Department is financing a programme of demonstration projects to show industrial concerns the potential for energy saving—initially in the field of waste heat recovery. It is also undertaking studies of 21 energy-intensive industries in order to provide details of energy savings problems and potential. Reports

on these studies will be published where it is thought they will prove useful.

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a saving of 10 per cent of the very least is well within the grasp of industry. He estimated that this means "about £500m is there for the taking". The long-term aim of the Government's conservation campaign is to save the equivalent of 10m tons of oil a year by 1988. This would be worth about £750m a year in 1977 prices. The £1.5bn estimate of the total energy savings made in the three years from 1974 to 1976 seem promising in this context and would suggest that officials are right in claiming some measure of success for the conservation campaign.

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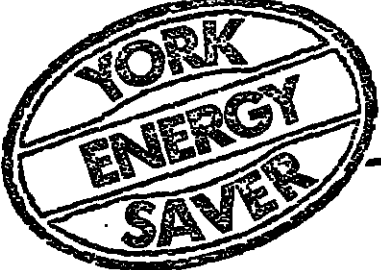
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ENERGY FOR INDUSTRY V

Government tries to set an example

THE PUBLIC sector is one of the biggest single users of energy in the country. It spends about £2bn a year on energy, accounting for some 15 per cent of total consumption. Of this total, about 9 per cent is consumed in local authority housing.

The Government and other public sector bodies, therefore, are in a prime position to set a leading example to the rest of industry in the efficient use of energy.

Local authorities, under pressure from ratepayers to keep costs down during inflation, have been in the forefront of energy saving campaigns. In the central Government the Property Services Agency, which is responsible for the upkeep of all Government buildings, has also for some time been implementing energy saving programmes.

One of the earliest formal recognitions of the need for energy saving in the public sector came in 1955 when the former Ministry of Education issued a circular to all local authorities urging the appointment of an officer for energy conservation.

A few progressive local authorities, such as Kent, West Sussex, and Hertfordshire County Councils took notice of this circular and their success in fuel savings dates from that time.

Local authority buildings encompass a wide range of domestic, commercial and industrial premises, such as schools, offices, workshops, depots, residential homes and housing. Thus the potential area for savings is considerable. An authority with a fuel bill of £5m, for example, could expect a recurring annual saving in fuel costs of between £250,000 and £500,000. Savings accruing from energy saving measures can form a "rolling

programme" from which other measures can be financed.

One local authority which achieved energy savings of around 10 per cent was Walsall in the West Midlands. The council found in the mid-1970s that its education department was accounting for an increasing proportion of its energy budget. The 1974 bill of £650,000 was expected to rise to £1.2m by 1978 — about four-fifths of the total energy bill.

The council, therefore, decided to carry out a pilot study of energy saving measures in seven out of the 180 buildings for which the education department was responsible.

Study

The pilot study revealed that heating was often left on unnecessarily at night and at weekends; thermostats were set at a level in excess of the statutory heating minimum; and defects found in the design of heating systems and the controls which manipulate them. The study came to the conclusion that there was "little to be done in many cases without significant capital expenditure but, on a cost-effective basis, there seemed little doubt that much expenditure would be justified."

Action was taken, however, to extend winter school holidays to save fuel.

Early results of the pilot study showed that the average savings from such relatively cheap energy saving measures was in the region of 20 per cent. Other schools were told of savings that could be made on lighting and heating and the policy regarding use of premises, swimming pools and the kitchens.

Since then the average saving being achieved is 10.3 per cent,

with the seven schools in the pilot study maintaining savings of 21 per cent.

The Government has made financial help available to local authorities to carry out energy saving programmes. The main aim of last December's energy saving package was to raise the energy efficiency of a whole range of public sector buildings.

One area of the programme of considerable interest to local authorities is the Government's decision to bring a large number of public-sector dwellings up to a basic minimum standard of thermal insulation. Standards of insulation in local authority housing are very low: over 2m council homes fail to come up to even the basic minimum standard. The Government is therefore embarking on a 10-year programme of loft insulation, tank lagging and draught sealing for public-sector housing. Over the next four years this will involve an annual expenditure of over £28m.

In addition, there are to be talks between the Government and local authorities on the substantial savings to be made in the space-heating of buildings. Extra funds—up to £7m a year—are being made available for installation of heating controls and the appointment of staff specifically to ensure efficient energy management.

Within direct Government control, the Property Services Agency has undertaken to reduce its annual fuel consumption by some 30 per cent by 1979.

The PSA campaign is controlled centrally from London headquarters but monitored throughout its eight separate regions, including Scotland and Wales, with each unit co-ordinating the work of the Agency's mechanical and elec-

trical engineers and putting their recommendations into effect. Continuing liaison with the Department of Energy is also maintained and a profitable cross-fertilisation of ideas and schemes has resulted from the Department's co-ordinating committee, on which the PSA is represented.

Energy saving measures introduced by the PSA include setting office temperatures in Government buildings at 65 degrees F as opposed to the 68 degrees F recommended. Such a relatively simple change can produce savings of many millions of pounds.

Perhaps one of the PSA's greatest single achievements to date has been the development, in conjunction with Honeywell, of an optimum start control mechanism, now being used in Government buildings throughout the UK. The system has been especially designed to match the particular heating requirements of the PSA's many buildings which are only intermittently occupied. A timing mechanism trips the heating system in advance of the employees' arrival and shuts it down after their departure, ensuring that fuel consumption is strictly limited to that period when personnel are likely to benefit.

The PSA has also devised a tariff selection computer programme aimed at ensuring that its gas and electricity supplies are provided under the most beneficial tariffs available. With the savings being achieved by both the PSA and local authorities, the Department of Energy hopes that industry will take heed and follow suit. But it may take more than mere exhortation to enliven the public sector for private industry to implement such savings.

David Churchill

Let's get to the bottom line of your building's energy saving potential.

Everybody's talking about saving energy, but with one very obvious omission. How much your building—with all its idiosyncrasies—actually can save in hard cash. Although you may have already taken some energy-saving actions, you are probably not aware of your full energy-saving potential.

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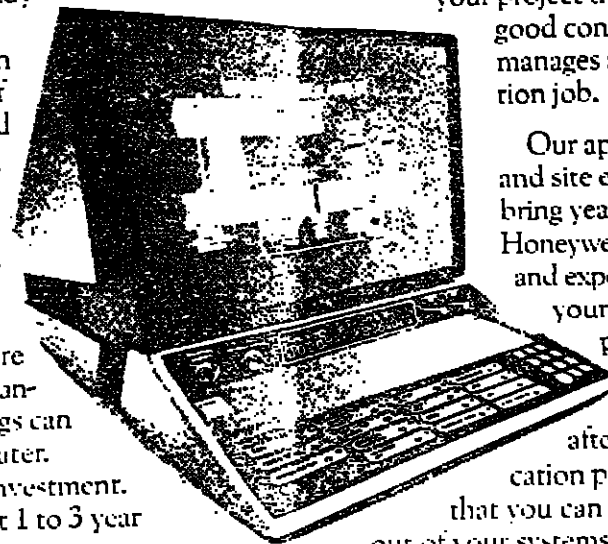
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Competition increases

THE ENERGY supply market is becoming fiercely competitive as the oil, electricity and coal industries try to combat the growing share of sales that is accruing to the gas industry. This competition has been heightened by the world surplus of crude oil and refined products which has tended to depress prices and give rise to discount offers in some sectors.

This temporary surplus of energy might be rather at odds with the exhortations from the individual supply industries to industrial and domestic consumers alike to make energy conservation a top priority.

All four of the supply industries are intimately involved in the mission of explaining energy conservation to industry. But it is also true that the message is inextricably involved with their marketing strategies, and none of them miss an opportunity to push the values of their own particular fuel at the same time that they are highlighting the virtues of energy conservation.

The central service provided by each supply industry, namely the provision of improved processes, techniques and management methods together offer both cash and energy savings and a strong reason to carry on using a particular fuel. Electricity and gas in particular can prove their worth in various premium applications and the supply industries are ready to involve themselves closely with a company to develop a special process technology.

A method developed by the electricity supply industry, for instance, has simplified the

process of drying imported bales of wool.

Australian wool is mechanically compressed into bales to save on expensive shipping space. It arrives at the mills with the individual fleeces firmly stuck together by their lanolin content. The bales have traditionally been stored for several days in a special room maintained at a heat well above the normal indoor temperature so, as the lanolin gradually softens, the individual fleeces could be separated. The method took time, space and money. The introduction of the method of radio frequency drying meant that the bales would soften in four minutes instead of hours. The firm involved was able to save about 13,000 gallons of oil a year, worth more than £4,000 plus achieve other economies particularly in the saving of space.

Electricity holds the smallest part of the industrial market on a heat-supplied basis with some 12 per cent. But industry still buys some 78,000 GWh of electricity from the public supply, accounting for 40 per cent of electricity sold and amounting last year to a revenue of more than £1.3bn. The trend of sales to industry, though from a relatively small base, has shown consistent growth since the worst of the recession in the summer of 1975. Sales 1975/76 were expected to be about 5 per cent higher than in the previous year.

At least a quarter of industrial electrical energy is used in the form of electroheat. In this connection heat recovery systems are being successfully

applied in situations where there is a surplus reject heat and a need for heat elsewhere. On a broader front it is possible to recover heat from industrial processes where cooling is required and use it to heat offices and factory buildings.

About three-fifths of the electricity used in industry is for motive power — mainly for driving production machinery. Special care is needed in the selection of the type and size of the plant and initial capital costs can be reduced by selecting motors properly sized for the load. The electricity supply industry is ready to make available its experience to the building industry as well as the manufacturing sector. For several years it has been pursuing an approach of integrated design in its own buildings with special emphasis on the efficient use of energy.

But it is the gas industry which has probably gone furthest in linking the promotion of its fuel with its potential for saving costs in industrial processes, and it has even established a special School for Fuel Management.

The school has made rapid progress since it was first established at Solihull at the research station of British Gas' Midlands Region. In the first year of its operations alone more than 1,000 directors, senior executives, managers and other representatives of the business world and public organisations attended its courses, either at the school itself or at sessions throughout the country.

British Gas, of course, has a special incentive for boosting sales of gas to industry for pre-mium uses over the next few years, as it is faced with the task of finding markets for rapidly increasing supplies of gas it is contracted to take from the northern North Sea fields, such as Frigg and Brent.

About 30 per cent of the total heat supplied in Britain comes from gas and it meets about 18 per cent of the UK's primary energy needs. The gas from Frigg alone will add 30 per cent by the end of the decade. The target rate the Gas Corporation has set itself for expanding sales in the next four to five years is some 700m therms a year. About three-quarters of the growth in the industrial sector will be in special contract sales rather than in the tariff market, and fewer sales will be made on the basis of interruptible contracts.

In common with the other supply industries, the oil companies, which in 1976 had a dominant 38 per cent of the industrial market on a heat-supplied basis, all maintain technical advisory staff to offer advice on fuel consumption and efficient combustion to customers. Esso, for instance, has recently produced a special practical training programme for boiler operators throughout industry to aid the safe and efficient use of automatic steam boilers.

Petrol represents only about 18 per cent of oil consumption in the UK, but there is much scope for using it less wastefully. Among others Shell is studying a number of opportunities for improving petrol consumption which have been identified by its fuel scientists at the Shell research centre at Thornton in Cheshire. It is believed that cars are potentially capable of an improvement in fuel economy of about 50 per cent over the next ten years.

The coal industry has lost considerable ground in the market place, its share of the industrial market going down from 48 per cent in 1966 to some 23 per cent in 1976. Any improvement in the short-term will be derived from coal becoming more competitive through increased productivity and moderated cost increases.

For the long-term, however, the coal industry is putting a lot of investment into research on improved coal utilisation. The National Coal Board hopes that the fluidised bed combustion system currently being developed, will make a considerable contribution to energy saving and through the elimination of sulphur emissions that it will be environmentally beneficial. The NCB is also developing techniques for the conversion of coal into oil and chemical feedstocks to replace the oil when it begins to run out.

Roy Hodson

Kevin Done

Search

CONTINUED FROM PREVIOUS PAGE

cent. electricity. The private sector steel-makers are far more closely linked to electric steel-making. All told, when the British steel industry is working briskly, it takes 9 per cent of the nation's total energy consumption.

The principal energy savings in bulk steel making in recent years have been achieved by using high quality foreign iron ores which enable more iron to be produced for each tonne of coal turned into coke at the blast furnace coking ovens. In parallel with that development blast furnace technology has itself improved with each furnace bigger and more efficient than the last. An optimum size now appears to have been reached with the 10,000 tonnes a day furnace being built for British Steel on Teesside. A second similar furnace was scheduled for Port Talbot, South Wales, but plans for that have been deferred indefinitely as part of the re-casting of the Corporation's investment programme.

The change in the steelmaking process from open hearth furnaces—which take many hours to melt a charge and produce

the steel—to quick-acting basic oxygen vessels is also proving to be a major area of energy saving.

One of the major worries for steel managers in Britain is the rising price of coal. British Steel—by far the major purchaser—has agreed to take 75 per cent of its needs from the NCB. But the price has risen from £6 a tonne to more than £30 a tonne since 1970. Furthermore it is becoming increasingly difficult for BSC to absorb all the coal the NCB wants to sell it during the steel recession. Faced with a £320m coal bill for 10.5m tonnes of coking coal during the current year British Steel is casting around for new savings.

Three main measures are being taken. A programme to use less coke is under way. By various devices, such as injecting oil into blast furnaces, savings can be made. There should be continuing gradual reductions in the ratio of coke to steel because of this sort of good housekeeping. Next BSC is blending varying qualities of coal by automatic selection methods in order to get the best mix from what the NCB sells.

Third, BSC is improving its coke-making techniques. One way is to pre-heat coal before it is fed into the coke ovens in order to remove moisture. Preheating plants are being installed at some BSC works.

More energy savings on BSC's massive coal bill are likely to come in the future from what is being called "Supercoking." It sounds dramatic. In reality it is coking coal and non-coking coal formed together into carbon briquettes. Experiments are going on at a plant in Scunthorpe. However, it would be many years—even if the experiments are successful—before the big BSC coke-using plants could all be equipped to make and use supercoke.

In the short term the main hope of all British steelmakers is that the market will continue to pick up after the hopeful signs of recent weeks. If plants can be worked hard they can overnight achieve something like a 10 per cent energy saving per tonne of iron or steel made compared with their performance at lower levels of working.

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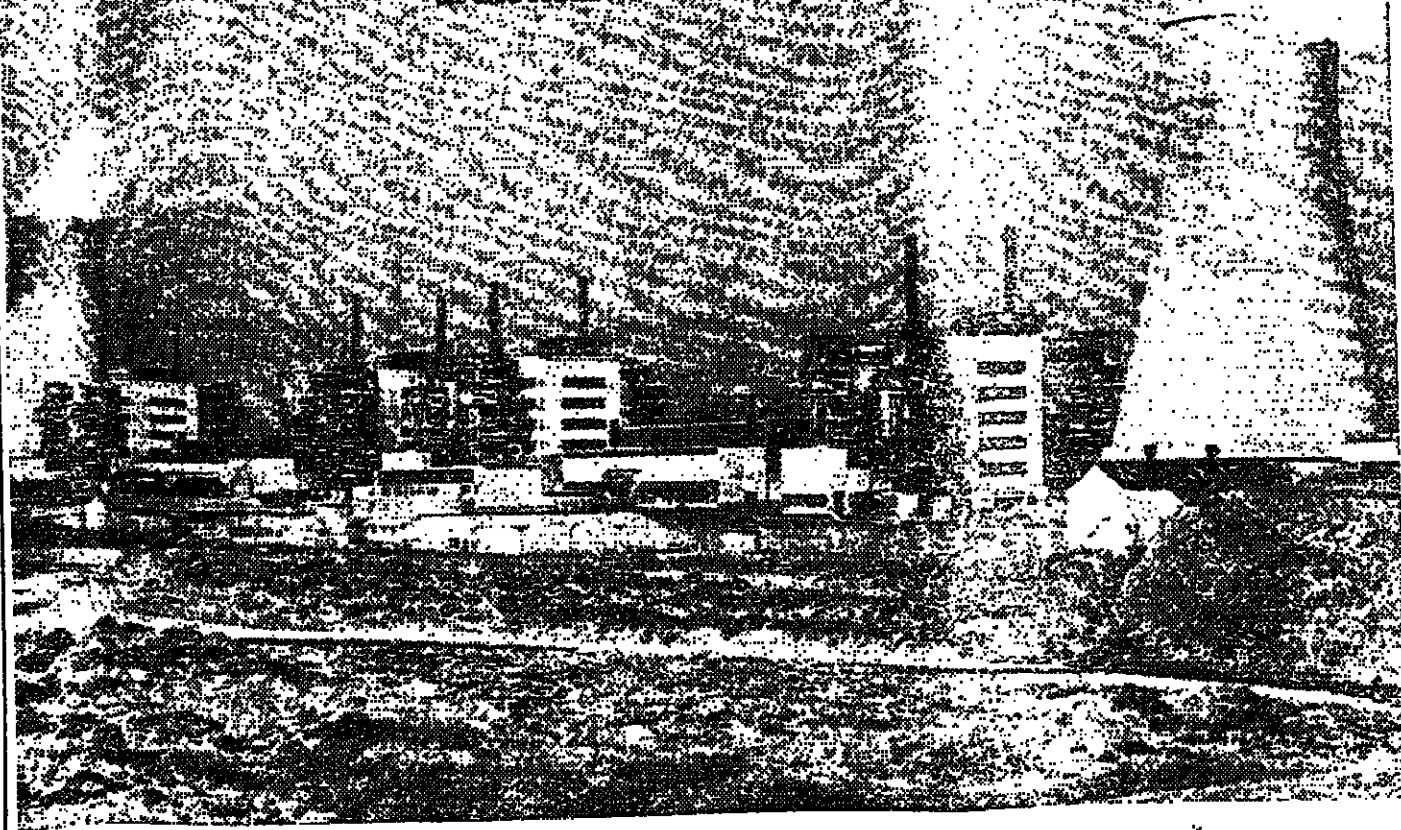
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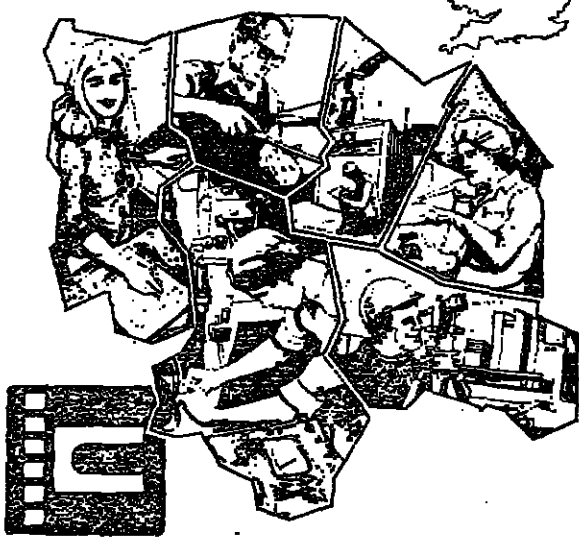
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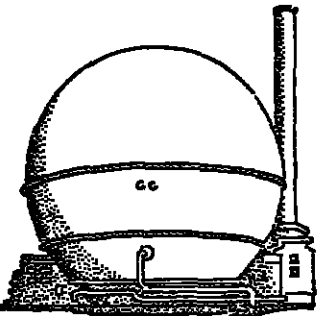
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ENERGY FOR INDUSTRY VI

Savings in chemicals

THE CHEMICALS industry is one of the major industrial users of energy. But unlike other big users, such as the iron and steel industry, it also consumes considerable amounts of oil and gas as feedstock for a great range of different processes and products. Petroleum feedstocks for chemicals represent about 8 per cent of crude oil consumption in Western Europe and this is a share that has been steadily increasing.

The chemical sector consumes more than 14 per cent of the total energy used as fuel in industry in the UK, a share that is only surpassed by the iron and steel and engineering sectors. The result is, of course, that energy represents a higher-than-average proportion of total costs for chemicals compared with industry as a whole. This has meant that there has been a continuing awareness of the benefits that sensible use of energy can bring. Energy conservation is not a new phenomenon in the chemicals industry but the sector's effort to reduce consumption was certainly stepped up in the wake of the OPEC oil embargo, which brought a quadrupling of oil prices. Last year the industry spent more than £1bn on purchases of energy as fuel and feedstock.

Growth

Chemicals have, of course, been at the forefront of the UK's industrial growth in recent years, so it is not surprising that demand for energy has been running ahead at a faster rate than that for industry in general. Between 1965 and 1975 the industry's demands on the nation's energy resources grew by 12 per cent. But in the same period production grew by 56 per cent—chemicals grew by 5 per cent a year from 1966 to 1976 when the rest of manufacturing industry managed only 1.5 per cent a year.

Given the much lower growth rate for energy consumption than for production, the chemicals sector has made a fairly spectacular saving already in

the amount of energy it uses per unit of product. Between 1965 and 1975 it cut its energy needs by 28 per cent per unit of product. Energy conservation is now accepted practice by the large and medium-sized companies, but there is concern that smaller members of the industry have not yet realised the potential for savings that exists.

Savings have come from a variety of sources. In the short-term the industry has improved its "good housekeeping" record in terms of better maintenance and quicker repair of faulty equipment. But the biggest gains are to be made from more radical changes. Existing processes have been modified and plant and equipment has been adapted with energy conservation made a top priority. For the long-term the industry is researching entirely new processes and gradually introducing less energy intensive products.

But the easy gains have been made. Over the 10 years from 1976 to 1986 the conservation targets are of necessity rather less ambitious. The Chemical Industry Association, which is active in preaching energy conservation to all companies in the sector, forecasts that over the next 10 years energy savings per unit of product will amount to about 7 or 8 per cent. Energy consumption is expected to grow at about 1 per cent less than the growth of output from 1976 to 1981 and only about 1 per cent less from 1982 to 1986.

The UK chemicals industry compares well with its major rivals in Europe and the U.S. for the way it has learned to use energy more efficiently. Only France and West Germany have comparable records over the past 10 years, while the U.S. has lagged far behind. The U.S. has lacked the same economic stimulus given to the European industry to cut energy use and has lived for many years with access to cheap energy. The U.S. boasts one of the most sophisticated chemical industries in the world, but with plentiful supplies of low-cost

oil and gas it has been wasteful. According to figures produced by the Chemical Industries Association, the British, French and West German industries' consumption of energy per unit of product is only 60 per cent of the total consumed by the U.S. industry.

All this is now changing of course and the U.S. industry has also learned from the shock delivered by the OPEC oil price increases. It is pouring considerable resources into the battle to become more energy-efficient and has now set up probably the most sophisticated energy monitoring system of any chemical industry in the world. The chemicals sector has been set the target by the U.S. Energy Department of cutting energy use by 14 per cent (measured by the amount used per unit of product) by 1980 compared with 1972.

Most of the chemical majors in the U.S., such as Du Pont or Dow, will comfortably exceed the industry's general goal. By

the end of last year, for instance, Du Pont, the largest U.S. chemical company had already cut its energy use per unit of product by 15.7 per cent. The company's energy savings from the beginning of 1974 to the end of 1977 totalled the equivalent of 17.4m barrels of oil.

In the UK leading chemical companies have made savings that are equally impressive. Imperial Chemical Industries has seen the average amount of energy used per unit of product fall by 18 per cent from 1971 to 1977. If it had continued to use energy at the 1971 rate the extra cost in 1977 would have been at least £40m. These savings resulted partly from the better running of existing plants and partly from expenditure on modifying existing processes. But the most significant savings can only come from radically new processes and plants.

Energy conservation efforts are not always cheap. British Petroleum, for example, is spending £57m on energy saving projects in its chemical plants and refineries over the next few years. Of this, BP Chemicals is spending £25m on 40 separate schemes. But the resulting savings will more than justify investment on this scale. BP Chemicals has already cut energy consumption by more than 10 per cent compared with 1973. Now the BP group is aiming at cutting energy consumption by 15 per cent over the 1973-80 period. In the next four years £33m will be invested at BP's refineries to make them more energy efficient, but that should achieve annual savings of almost £33m.

The chemical industry is also the UK's largest private generator of electricity. It uses about 9 per cent of the total electricity consumed in the UK and 22 per cent of that used by industry. It generates about 30 per cent of the total itself. Its usage of electricity has been fairly stable over the last 10

years but the picture for its use of other fuels has changed dramatically. Gas has moved from a negligible market share in 1966 to controlling more than half of the industry's energy requirements. But there has also been a broader move towards premium fuel applications, which has increased the demand for the lighter oil fractions. Both these moves have been at the expense of coal.

Further changes in the UK will be evident with the availability of new feedstocks from the North Sea. For the first time supplies of ethane are becoming available for use as feedstock in specially developed ethylene plants. And several companies are investing many millions of pounds to make their base petrochemical plants more flexible, to allow the use of liquid petroleum gases (propane and butane) as well as oil and naphtha as the basic petrochemical feedstock.

Kevin Daw

Economical motoring

THE MOTOR industry has not, as yet, had to face up to the most serious implications of the oil crisis. Petrol prices to-day are about the same, in real terms, as they were in 1973. The motorist, despite the steep increases in 1974 and 1975, has not been forced to demand economy at any price. Larger-engined cars have recovered from the slump in demand and remain just as important a part of the market as they were five years ago.

All the same, the long-term pressures towards better fuel economy are having their effects. These changes are seen at their most dramatic in the U.S., where every car range is being totally remodelled to create lighter, and more efficient, vehicles. In Europe and the UK the change cannot be quite so striking, since the average

car is smaller in the first place. But similar design alterations are under way. Lighter components are being developed, more precise electronic controls being produced, and vehicles restyled to give less air resistance.

Legislative fiat has given some guide to the way the industry has to react in the U.S. By 1980, individual car manufacturers will have their annual vehicle output tested against target fuel consumption rules and will face a fine on every car if they fail to reach this. The benchmark is an average fuel consumption per manufacturer of 20 mpg within the next two years, and 27 mpg by 1985—a figure which few European producers could achieve. By contrast, Britain's only equivalent step in forcing economy on the industry was the 1976 company car definition, in which the Treasury decided to make personal tax higher on larger-engined vehicles provided as a perk.

Although there are many critics of the American approach (some economists would like to see the industry forced to change through the petrol price mechanism) there is no doubt that it will speed up the application of new technology. The problem all manufacturers face in responding to the new challenges is that they have vast amounts of capital tied up in existing plants. An engine line, for instance, lasts for 25 years, and the normal approach to improving performance is related to this 25-year cycle. The demands in the U.S., however, are leading already to a great deal of work on new power units—General Motors is looking at diesels, and the whole industry is moving towards a replacement of its large capacity V8 units, which used to account for a little over 50 per cent of production, by V6s and even 4-cylinder engines.

Diesels have also encountered a big surge of interest in Europe. The reasons for this are twofold. First, some Governments, notably in Italy, France and Spain, have decided to encourage its use by favourable

tax concessions—in Italy, diesel sells at one-third of the price of petrol, and in France at about half. Second, in terms of mpg, diesel has been shown to give motorists about a 30 per cent better range than petrol.

There is still a great deal of argument in the industry, however, about the real utility of diesel fuel. Some economists argue that since it is a denser fuel than petrol (about 10 per cent) there is little advantage in using it in terms of saving on the amount of oil being consumed; and the additional cost of heavier engineering to accommodate the stronger engines which are needed (diesels work by compressing air until fuel is hot enough to explode) for the higher compression ratios of the engine, make diesels more expensive vehicles to manufacture.

Nevertheless, there is clearly a lot of interest in diesels at present which is not going to evaporate overnight. One strong point of the engine is that it gives a number of manufacturers a quick route towards meeting the miles per gallon regulations in the U.S.

The desire to produce generally smaller capacity engines has also revived interest in turbocharging. The principle behind this technique is well-established: the engine exhaust gases are used to drive a compressor which in turn pumps extra air into the engine to give it a better performance. In the past, however, turbocharging has only been thought suitable for commercial vehicles partly because of the higher fuel consumption in this field, and partly because turbochargers are difficult to refine.

At the same time, a lot of work is going into petrol engine design as well. There is no doubt that the next generation of engines will have much improved economy over today's standard units. They will use lighter metals, new cylinder head designs, and the development will be weighted towards economy rather than performance. Aluminium will be widely

used. In many engines, electronics is also expected to make a contribution. Petrol injection methods, using electronic means of determining the moment of fuel injection, will gain wider currency because this is a more efficient way of supplying fuel to the engine, and because of this, gives a cleaner burn.

Electronics will also help economy in two other ways. First, their increasing application will generally lighten the weight of a car. Second, they will be called in to exert much more control over the operation of the engine, thus maximising the use of fuel. Electronic ignition, injection, and even gearbox control is now being developed for use in all ranges of cars; and "closed loop" systems of modifying engine performance through checking the exhaust gases are also gaining wider application.

The new ranges of cars which are being developed will also use more aluminium and plastic. The idea of this is to cut down weight, which is the biggest single factor in high fuel consumption. This means that the high content of steel in the modern car will gradually be reduced, giving way, in the main, to aluminium, plastic, and new alloys. Aluminium, of course, has been used by some manufacturers for engine construction for some time. But it is now moving into some areas of body panel manufacturing. In the U.S., a number of cars today have aluminium bonnets and boot lids. Plastic will similarly be used for both small components and panels.

Better aerodynamic design is also contributing to more efficient fuel usage. Research in this field is the main reason for the growing similarity of shape in today's cars, with the drooping nose, swept-back windscreen and wedge-shaped rear end. This sort of design reduces air friction, and can improve fuel consumption by up to 5 per cent over more conventional shapes.

Terry Dodsworth

Textiles groups take notice

TEXTILES IS not on the face of it an industry which might be expected either to have an energy problem or to offer major opportunities for energy savings. In terms of total costs, energy accounts for much less than wages and raw materials, and the processes which most frequently spring to mind—spinning, weaving, knitting and sewing—use energy in the form in which savings would appear least possible—as motive power.

Yet one of the industry's big groups, Courtaulds, was among the earliest in British industry to go seriously into energy design cost, and in some cases saving, and has been able to claim savings of £10.5m over a two-year period. The industry's research associations have also been studying ways of cutting down consumption and, according to figures produced by one of these, the Shirley Institute in Manchester, the different sectors of the industry could cut their fuel bill by between 15 and 19 per cent with the aid of mostly inexpensive measures, representing in total value a saving of perhaps £20m a year.

There are a number of explanations for this. Like most other industries textiles has for too long been prodigal in its use of energy for space heating, and this is one important area where savings can be made. More important, there are some parts of textiles where energy consumption is a major part of total costs, and substantially greater than in many other manufacturing sectors. At some point in the processing chain most textiles have to be bleached, scoured, dyed, washed or wet processed, and this involves the heating of water and the drying of wet cloth. It is here, as the Shirley Institute studies have demonstrated, that the big savings in textile energy usage are possible.

The possibility of cutting down on the fuel bill is also of considerable importance to textiles in its battle for survival. The constant pressure under which it has had to operate for some time because of competition from imports means that it can ill-afford to overlook any area where ways of reducing UK manufacturing costs can be found. The scope for savings has also attracted the interest of the EEC authorities, who have selected textiles as one of four areas, together with brick-making, steel and non-ferrous metals, for special research. The Shirley Institute has been selected to carry out research on certain finishing processes under a £100,000 grant, half of

Washing

One Shirley exercise has shown that savings of as much as £80,000 were obtainable from changes in washing procedures at one plant. These included improved agitation, reducing the number of passes the fabric makes through the water and, perhaps most important, reversing the flow.

The considerable quantities of hot effluent generated by the industry can also be put to use by passing it through heat exchangers for subsequent use in warming up further quantities of liquid. Heat exchangers are now being supplied as integral parts of some pieces of finishing equipment, and in one case it is claimed the cost can be saved in single shift working in one year, and in a much shorter period with more intensive use.

Elsewhere in finishing the main potential savings are in the use of drying equipment where for a number of reasons there has tended to be over-drying of fabrics. The main piece of equipment used is the stenter, consisting of a hot air chamber through which the fabric passes. In many mills the

tendency is to have an excessive flow of hot air, but new instruments are now available which control the rate at which air is drawn in and extracted so that an optimum level of moisture content in the atmosphere, consistent with evaporation, is maintained.

Another instrument, also designed to prevent energy waste through over-drying, has been developed by WIRA at Leeds, which has been responsible for undertaking, in conjunction with Shirley, work on energy saving in the woolen and worsted industry under the thrift scheme. The instrument, a specially developed monitor, measures temperature at two points along the path followed by the cloth, enabling the operator to adjust the speed of the machine to ensure the correct amount of drying is applied. Energy savings of as much as 20 per cent are claimed from use of the monitor, which can also be automated.

With these various measures savings of as much as £7m could be achieved in the finishing sector, according to the Shirley research. In the woolen and worsted sector, where the main saving would again come at the finishing end, with a smaller contribution coming from spinning and weaving, the figure is put at £5m, and in hosiery, where finishing is again a major element, a saving of £2.5m is calculated.

Within the industry, therefore, there is scope for substantial saving, but there remains a major problem of isolating areas of inefficient heat use. The industry itself is highly fragmented, consisting of very many small units, and within individual plants a wide range of equipment is used for the different processes. In each plant a comprehensive audit is needed—an approach which Courtaulds itself has adopted. Each of the company's 300 sites has had at least one executive responsible for energy saving who reports to an overall energy co-ordinator.

It is this sort of approach which is likely to be backed in the next phase of the thrift scheme when the emphasis will be on helping companies to set up their own internal audits. If successful it could enable companies in the industry to turn some of the estimates of possible savings into hard cash which can be reinvested to achieve higher profitability and greater competitiveness.

Rhys David

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Watford Palace

Rain by MICHAEL COVENEY

Gloria Grahame is not exactly is feebly tempered with the prospect of her 27th birthday. But in all other respects she makes a fairly accurate impression on Somerset Maugham's unfortunate, Sadie Thompson. You may remember Miss Grahame as the tight-lipped brunette who received a cup of coffee in the face from Lee Marvin in *The Big Heat*. Like so many Hollywood idols, she has taken to the stage in later years on the strength of her screen reputation. And, in her British debut in *The Big Heat*, she does not do a little worse than she may be; but Miss Grahame makes much of Miss Thompson as an ageing good-time girl stranded in the South Seas with a righteous missionary couple and a more forgiving, middle-aged man.

The 1922 Broadway adaptation by John Colton and Clarence Rago, which like an old floorboard, but it has all the old-fashioned virtues of well-structured three-act melodrama. The ship's travellers are holed up in a remote Norfolk cottage as a result of a cholera scare. Maugham's brilliant narrative is plundered for stage purposes to good effect—and even if *Heat* is given an unlikely native wife and Sadie's final virtuous opinion of the male sex.



Gloria Grahame

Action Space

Young Guy Seeks Part-time Work by B. A. YOUNG

"Do you do French?" the anonymous callers always ask the 16-year-old Steve on the telephone. Steve, whose father is a £9,000-a-year businessman and a conscientious Liberal voter and whose mother is a small, liberal, child psychologist, does French and German, but does not habitually do relief messages which the callers want. The number on a little card outside a Notting Hill stationers' shop has the telephone number badly written. Most of the calls are intercepted by Steve's dim and boring parents, but one day Steve picks one up, and having inquired what the fee is, sets out for his part-time work.

The morality of this venture is not what John Bowen's is concerned with in this thin little play. What worries him is that Philip, Steve's father, means to go to the police, while Jane, Steve's mother, thinks this would be immoral. Their conversation, carried on over

Old Vic

The Lunatic, The Lover and the Poet by ANTONY THORNCROFT

For someone as "mad, bad and dangerous to know" as Lord Byron this evening his company is curiously dull. A worthy and reverential mood is set from the start as the quartet of actors trooped on stage with their files tucked under their arms like so many tax inspectors. They are joined by a sombre trio of musicians and the lesson begins. Byron's life is diligently traced, with Derek Jacobi hogging the title role without the aid of a sly leg—he did enough foot dragging in *I Claudius*. Isla Blair is all the women in the poet's life while Julian Glover and Harold Innocent make do as friends, servants, publishers, etc. It could have sparkled if the quotations had been sharper, the interaction between speakers more ping-pong, the music more imaginative. As it was it was just pleasant.

There were moments—Harold Innocent was affecting in his description of Byron's death at Missolonghi and Isla Blair was a well-observed Annabella Milbanke, the poet's unfortunate wife. Jacobi enjoyed himself with a few poems but there were too few of them, and too much geographical detail and tedious commentary. It never became clear why Byron had to leave England and

Television

Whatever happened to the news by CHRIS DUNKLEY

Any doubt that television was suffering from a bizarre affliction affecting the mental processes of its staff had to be abandoned finally on Monday last week. That was the day when the five-power conference on Zaire was held in Paris. It was the day when five people were charged with complicity in the Morro kidnapping. It was the day when the education voucher report was published. In sport it was the day when England beat Pakistan in the first Test and Willis attacked Qasim with a bouncer. Colin Powers won the European light welterweight title in Paris, and three competitors were killed in the Isle of Man TT sidecar race.

So what did the BBC and ITV news programmes decide to lead on? The banning of some pathetic Scottish footballer whose urine contained fencamfamine.

Television has surely reached a pretty desperate condition when it requires the former editor of a magazine as good as *The Economist* to open *News at 10* with an item in which he announces (in tones momentous enough to mark the suicide of a much loved sovereign): "These are the pills . . ." and the camera cuts to a huge close-up of yellow tablets being poured out of a bottle. The whole thing could hardly have been done more portentously if the pills had been used to poison the entire Cabinet. It is difficult to understand how Alastair Burnet can look himself in the face while shaving in the morning after delivering such rubbish.

More appalling still, the producers of BBC's *Late News* on 2 also decided that the pill-popping of the Scot was the most significant event in the world. That was even more dispiriting because the second channel to the BBC's reserve channel of relative sanity whatever absurd frenzies the other two channels may drive one another into.

But there are some disturbing straws in the wind blowing through this reserve. Not only is the BBC's news virtually indistinguishable from BBC1's, but powerful rumour has it that after *Newsday* comes off the air for its usual (if mystifying) "summer break" on June 23, it will never reappear. *Newsday* on British television was a serious journalism—as that phrase would be understood at the Financial Times, say—is the rule; where foreign news is given due weight; and where a single item may take up most of the programme if it is considered important enough, as was Michael Charton's interview with Morarji Desai on Thursday, for instance.

If *Newsday* goes, what programme will the BBC have left on either channel, capable of dealing seriously with really topical events? Tonight produces good news from the road, but it comes on relatively late in the evening, and even at its most serious it stands towards the popular end of the spectrum compared to *Newsday*. The answer is that apart from the weekly *Panorama* the BBC will have nothing of the sort left. ITV never had anything like it of course.

And yet I understand that for some time now Dick Francis, BBC television's head of news and current affairs (NCA) has been investigating with the various departments concerned the idea of creating not greater similarity but a sharper contrast between BBC1's news and current affairs and BBC2's, possibly the kind of contrast that is found between news on Radio 2 and Radio 3. In other words the idea is to make NCA on BBC2 more serious.

It is acknowledged that the difference in substance might be very great, but then a model of style and approach could be taken from the way in which the item on the doped footballer had been shortened, and placed last

recently been accused of "competing with numbers"—Sor sounds as if he composed with regular permutations of no more than three recurring numbers. Narciso Yepes' grave, eminently serious qualities as a guitarist were more evident from the recital's first half. Indeed, his reserved approach subdued almost completely the charm of Silvestre Weiss' E major Suite: the counterpoint was strongly pointed, but the tempo were slow—monstrously so slow in the Minuet and Allemande.

Yepes played the ten-string guitar which he claims as his own invention, though he did include a piece written for such an instrument by Ferdinando Carulli (1770-1841). I didn't feel that the extra resonance of the four added strings increased the effectiveness of his Bach arrangements or his 18th-century Pavans by Luis Milan: the over-deliberate playing action which he was forced to cultivate and the heavy weight of sonorous harmonics which lingered after every chord both combined to detract from the sprightly clarity of the music.

Philharmonia's young soloists

The last two concerts of the Mozart's Piano Concerto in E years the Philharmonia's lead soloist, 21-year-old Pierre-Laurent Aimard, making his London Festival Hall debut this will be. The programme will be completed with the Beethoven's *Concerto for Piano and Orchestra* and the Philharmonia will end its first season under its regained name with an appropriate Strauss's *Don Quixote* will be finished in Beethoven's *Eroica* on July 13 the soloists in Csaba Ardelyi (for the last four Symphonies).



Francis Tomelty and Don Henderson in 'Strangers'

instead of first, that news bulletin would have been a very different kind of fish.

The trouble is that with the summer break, then (judging from the entrails) the run-up to an election, and then the election itself, it seems highly unlikely that attempts at any new regular NCA programmes will be possible before early November, and equally unlikely that a complete new pattern could be properly tried out and established before next April. Meanwhile *Newsday* marches towards an untimely grave, and *News at 10* suffers from a brand of triviality and chauvinism quite indistinguishable from that of the news on both other channels.

However, we have meandered rather far from the particular disease afflicting television with which this article started. It is, of course, called *The World* and it is a superficial impression is that it has infected everything in the box. Surprisingly, though, there is quite a lot hidden away in odd corners which has remained unaffected by the contagion: some repeats, some regular programmes, and even a few new ones.

The repeats of Roger Jenkins' short film series from BBC Bristol, *Sea Tales*, are well worth catching. His directors—John Elliott last week in *Captain Varley Goes Home*—have used their rations of film to striking effect. Elliott was credited as writer as well as director which is impressive since the words had a feel of verisimilitude smacking of real documentary. But it was the cutting from man and face to ship and sea and dock, putting the man in his context and bringing that context home to the viewer which was so telling.

The inherently banal story of a cross-Channel ferry captain making his last passage was given an extraordinary poignancy which videotape would have been powerless to convey, a fact which was particularly striking on the day after watching Part 6 of *The Devil's Crown* on BBC2.

The atmosphere of this all-studio all-time story of the Plantagenets is becoming very close and stuffy: one longs for the wonderful Jane Lapotaire and her brood to get out of the dark cramped cellars in which they seem to intrigue, fight and have their entire being, and go for a mad filmed gallop through the countryside—if only for 30 seconds.

However much one sympathises with the difficulties of

working inside low budgets, and however interesting the story may be (which it is, for anyone taught history in the peculiarly fragmentary style of English schools) it is hard not to be irritated eventually by the sheer unreality of whole generations existing in torchlight and never going outdoors.

Even so, it is less than one hundredth as irritating as a 0-0 draw between Norway and Morocco played out there on the park that we have learned to call Cosmo.

The best series of any sort currently running on British television, *Landscapes of England*, ends tonight with Professor W. G. Hoskins looking at the places he knows best: his home town of Exeter and the home town of Exeter and the home town of Exeter.

His lyrical appreciation of the spring at Coombe Barton is typical of the best aspects of the series. Anyone who, like me, will greatly miss the weekly gourmet meal of Hoskins can find all 12 of his talks (this series and the previous one) in the paperback just published by the BBC, *One Man's England* (£3).

But while this seems to contain practically every word he has said on screen, as well as many good photographs, it is at best a reminder of the best of the programmes themselves. No book can begin to reproduce the marvellously rounded experience provided by Nat Crosby's magnificent film particularly that shot from behind the music by Gerald Finzi, John Ireland and others, and send him out to keep goal in the seething South American cauldron that we have learned Hoskins' friends used to "set his

dish of cream for him o' nights when Stonehenge was new. Yes, before the Flint Men made the Depowd under Chabotbury tag. And I have a strong feeling that in putting all the parts together, Peter Jones has produced a classic.

Another established series and one that continues through thick and thin and World Cups is M.A.S.H. which still raises more laughs per minute than any other series (including *Rhoda*). However it is becoming dangerously sentimental: not only is the once ruddy Radar being turned into a goody-goody choirboy type, but there is a tendency to leave poker-work motives hanging in the air. Thus a recent episode ended with Hawkeye asking the elderly C.O. which of the three wars he served in was worst, and the C.O. muttering "All of them, son, all of them." War is still seen as vile, and the wisecracking doctors are the only sane men around, but the series has gone soft at the edges if not yet at the centre.

More needs to be seen of the latest crime series—*Strangers* from Granada—before being sure, but the first episode looked like *Gangsters* running slowly in reverse: starting with the mandatory car chase through a datory car park (complete with scattered garbage) it ended with the scene in the gay night club cum brothel cum gambling den. Don Henderson wears gloves throughout just as he did (surely?) in his last crime series. He should be careful: some might get the wrong idea and send him out to keep goal in the seething South American cauldron that we have learned Hoskins' friends used to "set his

Shaw

I'm talking about Jerusalem by B. A. YOUNG

The Dolphin Theatre has done well to give us the whole of the Wesker Trilogy in sequence, for among other things it shows us that this last play of the three is a better piece than it has sometimes seemed. *I'm Talking about Jerusalem* is Arnold Wesker's first shot at creating an ideal Socialist community, and here he keeps his feet on the ground. When he tried something more ambitious in *The Very Own* and *Golden City*, substituting an entire town for a hand-made furniture workshop, he wrote nonsense. *I'm Talking about Jerusalem* is very sound sense, and because it is practical and truthful, it ends in failure.

Dave Simmonds, whom we met earlier as the man who fought in the Spanish civil war, has decided after serving in the RAF to set up as a small craftsman in a remote Norfolk cottage. (Mr. Wesker's characters have astonishing good luck at so-so; I did not feel anything finding cottages in *The Four Seasons* they find one empty and furnished.) The story is a simple one. It consists only of arguments against Dave's success.

The family, Jewish East Enders, believe the country to be fatal in itself. Libby Dobson, Dave's mucker in the RAF, has deserted Socialism and, in his order, cynical way, mocks Dave and his wife for not going into business properly. (Mr. Wesker makes Dobson so bestially uncharming that it is clear that this argument is peculiarly repellent to him.) Colonel Dewhurst, for whom Dave works as a carpenter, sacks him when he takes some old first shot at creating an ideal Socialist community, and here he reveals Dave's weakness for the loose morals of the city factory. Young Sammy, taken on as an assistant in the workshop, leaves to make money faster in the air of dark-roomed towns (to quote Dave's favourite song). And finally, Dave's brother-in-law that same Ronnie Kahn, who bolted from Beattie Bryant in *Roads*, bursts into a characteristic melancholy at the defeat of what he recognises belatedly as a splendid vision.

It is not a very exciting play, more of an evening's debate; but there is a lot in it to think about. (Mr. Wesker's characters are very Jewish about any of the *Seasons* they find one empty and furnished.) The story is a simple one. It consists only of arguments against Dave's success.

The family, Jewish East Enders, believe the country to be fatal in itself. Libby Dobson, Dave's mucker in the RAF, has deserted Socialism and, in his order, cynical way, mocks Dave and his wife for not going into business properly. (Mr. Wesker makes Dobson so bestially uncharming that it is clear that this argument is peculiarly repellent to him.) Colonel Dewhurst, for whom Dave works as a carpenter, sacks him when he takes some old first shot at creating an ideal Socialist community, and here he reveals Dave's weakness for the loose morals of the city factory. Young Sammy, taken on as an assistant in the workshop, leaves to make money faster in the air of dark-roomed towns (to quote Dave's favourite song). And finally, Dave's brother-in-law that same Ronnie Kahn, who bolted from Beattie Bryant in *Roads*, bursts into a characteristic melancholy at the defeat of what he recognises belatedly as a splendid vision.

There was no sting in the obvious affection. As for the B minor Adagio by Mozart which began the recital, it breathed that fragile poignancy such as the writing belies the depth and power of the piece, and pianists are often tempted into over-dramatising it. Brendel kept it relaxed. Allegretto, an "Ende rock-steady" with only two or three touches of deliberate point, and the result was monumentally elegant.

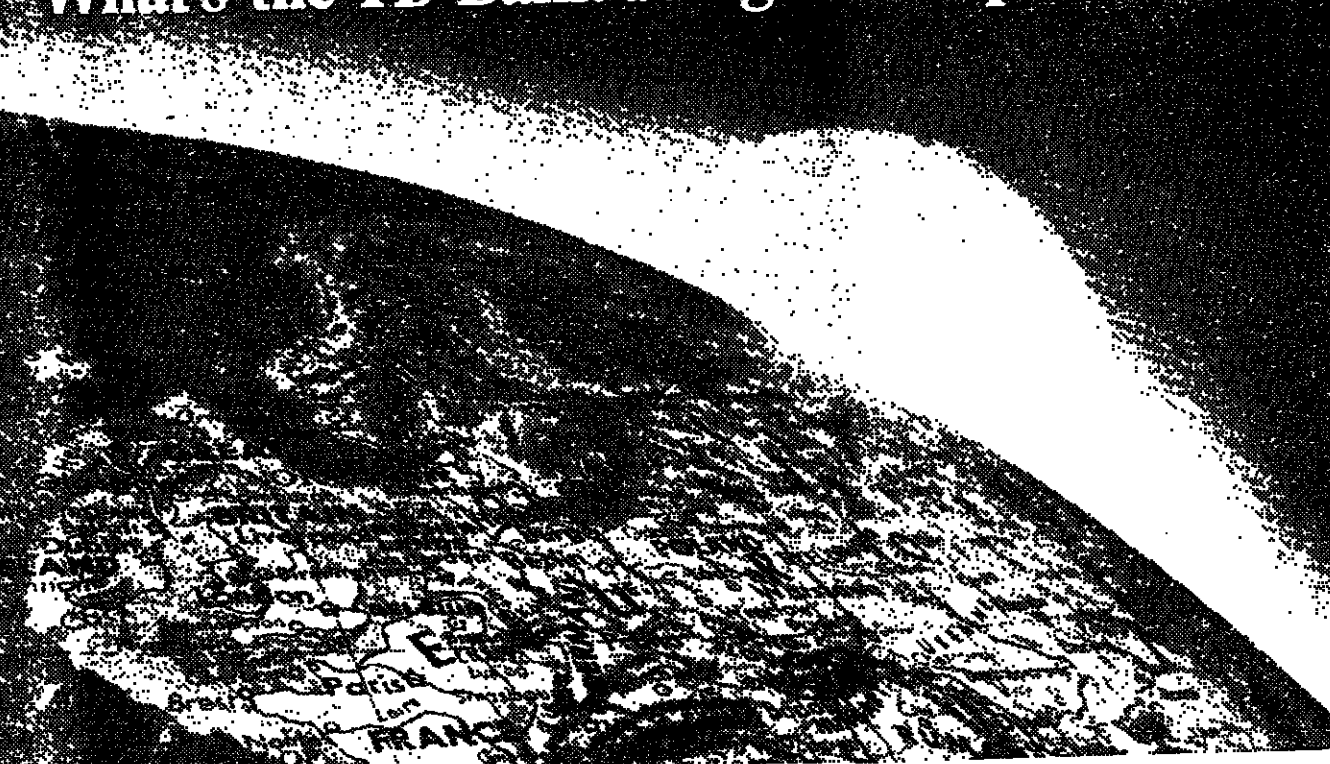
One half expected the same stern tenderness in the Schubert Sonata, but Brendel offered something quite different. The as opening statement was sung out urgently and freely, and then the trickling quaver descent ushered only this Saturday at 1.10 p.m.

Arts Council anthology of Short Stories

The Arts Council's annual anthology of short stories, now in its 29th year, is now available (hardback: £4.95, paperback: £3.25).

After the favourable reception given to the two previous volumes, the Arts Council has published its third volume of the series in conjunction with Hutchinson and the Pen Club. Out of more than 600 stories submitted, 29 were selected, all previously unpublished. The anthology has been edited by Ronald Harwood and Francis Brown. Among the more established authors represented are Robert Fernald, Giles Gordon and Laurence Lerner.

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The right MPs for Europe

WHEN the first direct elections to the European Parliament are finally held 12 months from now, it is important that they should be a success. It would be unfortunate if the new Parliament's credentials were to be open to doubt as a result of public apathy reflected in a low turnout at the polls. Candidates in the European elections will have a double task. In the first place, as in national elections, they will of course have to persuade the voters to elect them in preference to their opponents. In the second, however, they will also have to explain what the European Parliament is and the reasons why it should be taken seriously—whether they are pro- or anti-Market.

Dynamism

This makes it all the more necessary that the candidates should be of a high calibre. The tendency under the present system of "indirect election" has been for national parties and parliaments in most of the nine member countries to nominate their more easily dispensable MPs to Strasbourg. There are, of course, honourable exceptions. Nevertheless, the introduction of direct elections will have failed in at least part of its purpose if it does not enhance the dynamism of the Parliament's members.

That may not be the main intention of the Labour Party sub-committee which this week voted to ban MPs from simultaneous membership of Westminster and the European Parliament under the so-called "dual mandate" system. It is, nevertheless, a welcome decision. If the European Parliament is to be a proper Parliament, it must be able to command the full-time loyalty of its members. The dual mandate already hampers the activities of the present Parliament, which meets no more than one week a month. The directly elected Parliament will almost certainly meet more often in full session, quite apart from the time-consuming business of committee meetings and travel between the Parliament's three centres—Strasbourg, Luxembourg and Brussels.

It would be almost physically impossible for a directly elected MP to do a good job in both the European and his national Parliament. There is also a political problem to which attention has

recently been drawn by Mr. Frank Allaun, a left-wing member of the Labour Party's National Executive Committee. He makes the perfectly reasonable point that the dual mandate MP cannot represent one constituency of 300,000 people for the European Parliament and another of about 70,000 for the British one. Whether or not they share Mr. Allaun's views, the Conservatives are likely to adopt a similar position when they come to decide on the dual mandate in the near future.

Concern for the effectiveness of the European Parliament is not, of course, the main motive behind such thinking. Both of the major parties have been focused on the issue by the imminence of a general election in Britain and the possible consequences of the dual mandate for their post-electoral fortunes at Westminster. The thought of snap votes in the Commons with up to 81 MPs away in Strasbourg, particularly if the election produced a hung Parliament, is a Whips' nightmare. But the prospect of a string of by-elections next June as sitting MPs defected to Europe is of equal concern. That option would also be ruled out by the Labour Party sub-committee's decision, which is expected to be endorsed by the National Executive Committee later this month.

Salaries

If, however, there is to be no dual mandate, the issue of the European MPs' salaries becomes if anything even more delicate. There will be great resentment at Westminster if the European members are paid the huge (in British terms) sums earned by some of their continental colleagues. There will also be an outcry if they do not pay British income tax. The best answer is probably along the lines of the scheme currently under study in the Community which would provide the same basic salary for European MPs from all nine countries. There would then be additional, variable allowances to account for expenses and differences in national earnings rates. It is essential, however, that the pay should be high enough to attract talented politicians to the European Parliament. If that, in turn, led to pressure for an increase in British MPs' salaries, it would be no bad thing.

New approach to London's roads

OF THE various factors that have contributed to the decline in industrial employment outside London, the poor quality of the capital's road system may not have been the most important but its influence has certainly not been negligible. So it is welcome to find the Greater London Council fulfilling its role as strategic planning authority, saying that more must be done to remedy the most urgent deficiencies.

Minimum

It is a pity that the need was not recognised earlier, for urban road building programmes have been the victims of particularly sharp swings in political fashion. In the first flush of enthusiasm for Professor Buchanan's ideas about transport and land use planning in the 1960s, a Labour-controlled GLC proposed an improved London road network based upon three concentric motorway rings. In principle, there was a lot to be said for the Buchanan concept of traffic corridors and environmental areas. But the economic cost was likely to be high, and the political and social repercussions were considerable.

Public and private developers in Victorian times may have been able to get away with grandiose schemes for new roads and urban redevelopment. But, in an age of popular democracy, changes in public attitudes can encourage politicians to believe that votes are to be won by building roads in one year and by coming out against road building in another year. As a result, not only have the plans for motorway boxes been killed off and the routes no longer preserved, but London's road building budget has been cut to the barest minimum. The scale of the cutbacks means that it will be some time before the new programme can be moved into gear. The GLC envisages expenditure rising from £66m in the last five years to £155m in the next five years and then reaching £280m and £420m in the two following quinquennia, with piecemeal

Quality

In any case it is not only the controls on industrial development and London's high costs which have persuaded industrial firms to move elsewhere but the lack of physical space in which to expand and the shortages of skilled labour. It is hard to see how these problems can be made good for they reflect the desire by employers and employees alike to seek a better quality of life elsewhere. More sensitive planning policies may mean fewer small firms disappearing; and local initiatives, such as can be seen at Greenwich, may attract new ones. But London's employment prospects mainly lie in trying to slow down the loss of industrial jobs and encouraging more office and service activities. For both, a better road system will be needed.

The coming of the robot workplace

BY MAX WILKINSON

THE GOVERNMENT'S decision to risk a major investment in micro-electronics stems partly from the fear of a new industrial revolution which could fundamentally alter the relationship between capital and jobs.

Few now doubt that the integrated circuits pouring off the production lines in Japan and the U.S. at the rate of \$4bn worth a year will wreak a series of unpredictable changes throughout industry and society.

The rate of change is arguable, but it is already clear that the new integrated circuit technology will bring an enormous increase in automation, industrial robots, and computer control. Even the slightly sinister phrase "artificial intelligence" is now beginning to have practical industrial implications.

In Japan, plans for a complete machine tool factory run entirely by robots and computers are already well advanced. The only humans involved would be in supervisory jobs, because even routine maintenance would be carried out by machines. Such factories would eliminate the jobs not merely of manual workers but of the complete spectrum of skilled operators.

Because of the huge capital costs, such completely automated factories may be slow to develop. However, the replacement of jobs by machines has already happened to a startling extent in some factories. In Southern Italy, for example, a computer system has been developed to run a refrigerated warehouse for 11,000 tonnes of ice cream. Only two operators are needed to work a system which can handle 100 pallets an hour for 15 hours a day and is capable of rotating the stock completely automatically.

Even in the mechanical assembly of small machines the developments of so-called artificial intelligence are likely to have an increasing impact. Mechanical arms are being linked by computer to a television type of camera which can "see" the work being assembled. International Business Machines, for example, has completed a four and a half year development of its "mechanical assembler project" which can put together eight parts of a typewriter in 45 seconds and is applicable to a wide range of similar industries.

Such examples abound. In Japan for example, it is estimated that some 70,000 industrial robots are currently in service, about a third of them in the motor car industry. They undertake quite complicated tasks like welding, machining and increasingly the assembly of mechanical parts.

Even in the UK which is relatively a laggard in this type of investment, computer control

of metalworking machinery and the automatic insertion of electronic components are becoming increasingly commonplace.

The integrated circuit technology which makes these developments possible undoubtedly has an element of black magic about it. Even engineers are often uncertain about how it works. Many people, including trade union leaders, are beginning to fear it, and to the majority of ordinary people the most factual descriptions sound incredible. At present circuits with up to 100,000 transistors can be etched onto a single slice of silicon less than the size of a postage stamp. By the middle of the 1980s it is expected that 5m to 10m components will be etched on a single chip.

This increase in complexity will, moreover be accompanied by a continuing fall in unit costs and an improvement in almost all aspects of the circuits' performance. The lowering of costs and increase in performance is, indeed, directly related to the reduction in size.

It is now commonplace to compare the influence of this new technology to that of the development of steam power in the late 19th century. Yet it is

cells per chip is still at an early stage.

It may not therefore be too late for a European government to make a determined entry into this new technology, although the risk is high and the amount of money required could be measured in hundreds of millions of pounds over a period of five years or so. The British Government now appears ready to spend around £100m, partly through support to companies already in the field and partly by setting up a new semiconductor subsidiary of the National Enterprise Board in co-operation with a group of American and expatriate British technologists.

The uncertainty of this venture can be judged from the fact that the Enterprise Board is currently talking about an investment of £20m to £30m. Some of its advisors talk about £50m and competitors like Philips and IIT believe an investment of £300m to £500m is necessary. Moreover, the Enterprise Board has been talking to the Government about the creation of some 4,000 jobs eventually. Given that the industry is currently turning over some £20,000 in sales per employee, the Enterprise

The Government's decision to back such a speculative project must therefore owe a great deal to its anxiety about the general strategic implications of micro-electronics for the rest of industry. If semi-conductors are going to reduce employment in the UK, it is argued, at least the UK must have a stake in the technology which will effect the change.

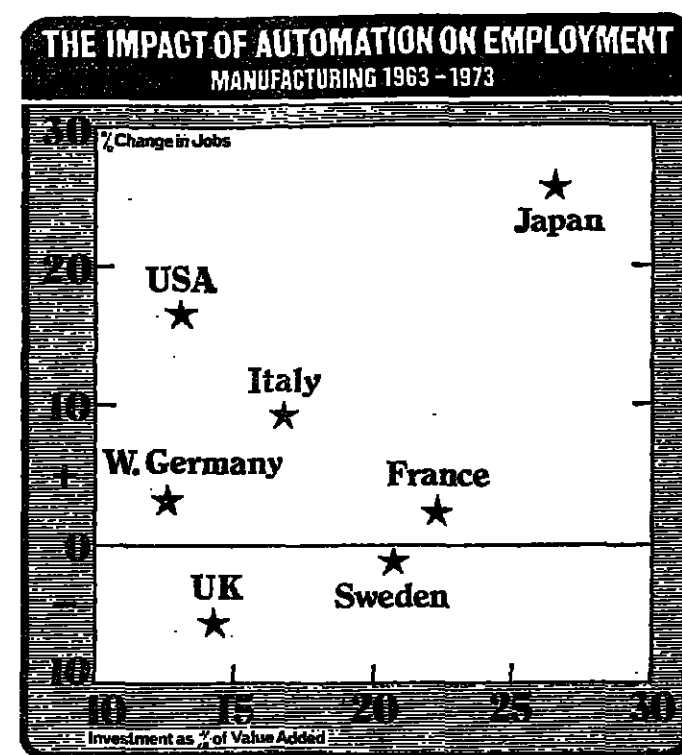
But will the application of computers and micro-electronics to industrial automation necessarily lead to a loss of jobs? This is a major uncertainty facing most of the industrialised nations, particularly in Europe. Some economists argue that the electronics revolution will result only in the speeding up of the process of automation which has been with us for 100 years. Mr. Simon Petch, deputy secretary to the Engineers and Managers Association, for example, says the new developments can be seen "not as something qualitatively different in kind from anything else that the economy has had to deal with but merely as an extension of some of the long term problems which we have had to consider for many years now."

In a similar vein, a confidential analysis by a senior Treasury economist points out that historical evidence leads to the conclusion that investment in automation is linked to an overall increase in employment even though jobs in some industries decline. He says: "In the UK between 1960 and 1980 the total population rose by over four fifths and the working population nearly doubled. But the rise in employment fully kept pace and, so far as comparable estimates can be made, the proportion of unemployed fell slightly. This rise in employment was accompanied by a massive investment which resulted in a quadrupling of the capital stock of the country."

Obviously, such historical data must be treated with great caution, because it cannot allow for the radical change in the technological foundations of industry which is now taking place.

But the point remains: we cannot possibly foresee the markets of the future, any more than economists of the 1930s could predict, for example, the current sales of television sets, calculators or indeed the market for industrial robots.

Any attempt to achieve a general overview of the relationship between investment in machinery (with or without electronic control) and the creation of jobs is complicated by the almost complete lack of correlation between such investment and changes in manufacturing employment. The diagram shows in general that large investment in Japan has been associated with a big increase in employment while the reverse is the case in the



important to remember that micro-electronics is still in its infancy. After the invention of the transistor in 1947, it was not until the 1960s that techniques for connecting more than one transistor on a wafer became important. Simple micro-processors on a wafer started to appear at the beginning of this decade, but it is only in the last two years that the true micro-computer has been developed. Similarly the development of high capacity semiconductor memories with 64,000

Board's proposed subsidiary would have to achieve sales of some £30m a year. This is a truly formidable, though not impossible, objective.

A rapid penetration of the U.S. market with a narrow range of products including high density memories will be necessary; and this must be achieved against fierce competition from established companies like Intel, Fairchild, Mostek and the Japanese which are already well on the way to developing the next generation of products.

MEN AND MATTERS

New chairman for quiet market

The International CD Market Association is not a name on everybody's lips, but seeing that the London market in certificates of deposit totals no less than \$22bn its new chairman has obviously a fair measure of clout. David Potter of Credit Suisse-White Weld, who is aged 34, told me that he had "grown up" with the market since it was "very small, a mere billion dollars or two" in 1968.

Since then it has developed quickly, you might say inexorably. But it is only in the past two years that the Association itself has again begun to become representative of the major factors in the market.

Before then, Potter explained, the vast majority of its members had been London's traditional discount houses. Now, however, the "ethnic mix" is broader, with increasing participation of the investment banks and more commercially-oriented banks.

Potter told me that at first the Association had enforced tight rules on its members. Such rules had worried U.S. banks who feared they might be impeded from dealing with whomever they liked in whatever paper they chose. They were also fearful of anything which smacked of restrictive practice. Other sources say there was also a dispute over the margins then normal in Britain which were relatively high compared with those in New York.

about such major CD dealers as Salomon Brothers, Merrill Lynch and First Boston? I asked him. "They are actively considering joining us," he replied.

Heavy joke

Two tons of coins and 15,000 one-cruzeiro notes spell revenge, or did in Brazil this week. Sr. Paulo Francisco, a school owner, became incensed when a local car dealer refused to accept his cheque for the equivalent of \$4,446 for car repairs.

Setting out as if he were the standard bearer of all Brazilian cheque writers, he turned up the next day with the coins, 350,000 of them, and the notes. After three hours the car dealer had managed to count the equivalent of \$13.84 — and faced the prospect of 41 24-hour days before finishing wading through the tiny coins. "We accept it with good grace," the dealers now say, sighing collectively. "It is obviously a joke."

Comradely chat

Edmund Dell and his eager colleagues at the Department of Trade might learn a thing or two from the new German-Russian foreign trade phrase book which has found its way to our hands. The 206-page book, which is to help East German negotiators, has an example or two which would hardly please our Ministers who are trying to persuade us our prices will stay stable. Petrov: "I gather that your price has been raised 12 per cent. Based on the competitive offers we received we can only agree to a price increase of 8.9 per cent."

Kramer: "We have sounded out the main commodity markets. . . . We can also show you an offer from an English company."

The section on delivery dates has such standard phrases as



"Officially, yes—unofficially, no!"

"We will be unable to deliver a single machine in the first quarter"; that on delivery problems has a long dialogue on the freezing of the Black Sea and ore-loading difficulties at Murmansk.

That all does not always run smooth even between the best of comrades comes clear from the following:

"Your reasoning is unclear and unconvincing."

"These prices must be rejected as a basis for further negotiations."

"Our figures do not agree with yours."

"I cannot make any further concessions."

But still all's well that ends well, or at least ends with the toast translated "To the enduring and inviolable friendship between our peoples."

FO's mini

It is not every day that Britain establishes a completely new embassy, so the decision by the Foreign Office to appoint our first ever ambassador to Gabon is something of a diplomatic milestone—especially in view of

last year's report by Sir Kenneth Berrill's "Think Tank."

Until recently, Britain has taken only a modest interest in most of France's former colonies in West Africa, many of which are of limited economic and strategic significance and still accord a privileged position to their ties with Paris. Such relations as existed between the UK and Gabon have been handled through our embassy in neighbouring Cameroon. But Gabon's recent emergence as a newly rich oil exporter has prompted some rethinking in Whitehall. Politically, too, the country has acquired extra significance through its seat on the United Nations Security Council.

The new embassy will have only two diplomats and be modelled after the "mini-missions" which a number of smaller European countries have overseas. One question is whether such a post will be able to offer the consular services to which itinerant Britons have become accustomed. If it is a success, more mini-missions will follow.

The man chosen to become British Ambassador is Christopher Macrae. An able 41-year-old, he will be looking at Africa with a fresh eye. An expert on Arab affairs, he has spent the past two years seconded to the European Commission in Brussels, where he has worked on the Euro-Arab dialogue.

Old times' sake

My colleague B. R. Ackenhouse was wending his way along Kensington High Street yesterday when he came upon four people cheering a woman hard at work in the midst of a window display of vacuum cleaners. Her weapons? A dustpan and brush.

Observer



Klarn the Robot with Mr. Anthony Reichek, director of Quasar Industries, who is demonstrating its "servant" capabilities.

UK. However, the widely dispersed relationship between investment and employment in the U.S. and Sweden, for example, shows only that it is difficult to make any generalisation.

The relationship must inevitably be complicated, for even in industries where investment will reduce employment (telecommunications is an example), this may create more jobs by opening up new market sectors or by cycling profits into other parts of the economy.

This is one reason why it is desirable for the UK to have a share in such a highly capital intensive field as the production of micro-electronics. Even if a UK company in this field made no profit, the support given to the computer, control and automation and even the office equipment industries could be enormous.

However, even if a new equilibrium is eventually reached between capital spending and the creation of jobs, it is likely that a period of severe upheaval will precede it in the shorter term.

The main reason is that it is difficult to see any major industry in the manufacturing sector which will be immune from the trend for the next few years to contract. Moreover, the office and secretarial jobs which have shown a steady increase for several decades will also be threatened by computers and micro-processors. Automatic typewriters, electronic communications, and large computer filing systems will all have their effect.

In Germany, which has the largest office population in West Europe and the highest degree of automation, a study by Siemens estimates that by 1990 about 40 per cent of present office work could be carried out automatically.

Similarly in France a recent severe problems."

Punch

SUMMER NUMBER BEATS ALL RECORDS

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PUNCH SUMMER NUMBER—WHEN IT'S THIS HOT, YOU HAVE TO LAUGH

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Brazil: headache after the miracle

By HUGH O'SHAUGHNESSY, in Sao Paulo

A LEADING opponent of the Brazilian military Government signed: "It is very difficult to foresee the future in this country. We are either a step away from power or a step away from prison."

He had summed up the feeling of political and economic uncertainty which has invaded Brazil for the first time since the army seized power by a coup d'état in 1964. With the rapid fading of the Brazilian economic miracle the Government of General Ernesto Geisel has, in the past few weeks, suffered such a series of reverses that many Brazilians, commentators, politicians, and businessmen alike, are prophesying that a big shake up in the largest Latin American country cannot be long delayed.

For nearly a decade the military ruled Brazil with little effective challenge to their will. After the coup the armed forces and police moved quickly to wipe out political opposition, the old parties were wound up, and two new artificial creations, Arena, a supposedly pro-military grouping, and the Brazilian Democratic Movement, or MDB, a closely controlled "opposition" group, were created to maintain a somewhat empty semblance of continuing democracy in a carefully circumscribed Congress in Brasilia.

Faltering threat

Strikes were virtually banned and trade unions stripped of effective power while a faltering guerrilla threat was finally crushed by the end of the 1960s.

The early 1970s saw Brazil in the midst of a "miracle" with growth rates for a number of years in excess of 10 per cent

per annum. For once in its republican history the country appeared to be living up to its national motto, "order and progress." Loans and investments poured into Brazil from the U.S., Europe, and Japan in a greater atmosphere of euphoria than ever generated by any developing country. Roads were cut across the jungle, floods of cars issued from the factories of Sao Paulo, the world's fastest growing city, the military bought quantities of arms, and Brazil flexed the muscles of its diplomatic influence from Moscow and Brussels to Pretoria and Santo Domingo.

The higher echelons of Brazilian society enjoyed an undreamed of prosperity though very little of it trickled down to poorer Brazilians. But with the oil crisis of 1973 the economic picture was suddenly altered for a country which relied on imports for more than three-quarters of its petroleum. The increased oil bill placed a considerable strain on the balance of payments, which was only relieved by immense efforts to increase exports and attract yet more foreign capital. But now growth levels have fallen dramatically and popular discontent is increasingly being voiced.

In 1974 General Geisel took over the presidency for a five-year term pledging to nudge Brazil back towards democracy. "Distensão" or political and social détente was his watchword. Since then however the tide of concern has been lapping ever more insistently around the Planalto, the remote presidential palace in Brasilia as President Geisel has tried to carry out a very delicate political task.

Now with President Geisel's term nearly complete and as his chosen successor, General Joao Baptista Figueiredo, prepares to

take over, the country seems suddenly plunged into a fit of uncertainty which has been deepened at a popular but none the less important level by Brazil's undistinguished showing so far in the World Cup. In the economic field, last month saw a massive but strictly orderly revolt by tens of thousands of metal workers in Sao Paulo against the continuing erosion of their living standards. Inflation is moving towards 45 or 50 per cent a year and wages remain controlled by Government decree. Companies like Chrysler, Fiat, Philips, Volkswagen and Mercedes, unused to demands from the workforce, were caught nearly as unaware as was the Government.

Eroded wages

Neither employers nor officials could dismiss the affair as political agitation because the strike leader, Sr. Luis Inacio da Silva, universally known as "Lula," was careful to keep radical students or Sao Paulo's fringe of communists and Trotskyites away from the stoppage. It was clear to all that the factory workers were not stopping work to do honour to Marx, Lenin, or anyone else, but because they were no longer prepared to tolerate a system in which real wages were constantly eroded by comparison with management salaries and company profits.

Although the Government eventually had the stoppage officially declared illegal it was shown to be powerless in the face of the determination of the Sao Paulo workers. One by one the individual managements are now coming to agreements with their workers and offering between 10 and 20 per cent above the Government authorised increments. It is



A cordial handshake from President Geisel for his chosen successor, General Figueiredo, but the successor remains controversial even among the military.

difficult to see how Government labour legislation will ever have its old authority again. At the same time Lula and his supporters have shown that a strike does not necessarily mean red terror in the streets.

The second and political blow to the Government was delivered from Sao Paulo. Just over a week ago delegates from the branches of the normally docile Arena from all over the state of Sao Paulo came together in the city to choose their candidate for State Governor. General Geisel had

indicated that he wanted Sr. Lando Natel, an experienced and utterly safe politician, to be ratified by the delegates. Instead, they chose a colourful and highly controversial figure of Lebanese extraction, Sr. Paulo Salim Maluf, whose previous forays into politics and the world of finance were part of local folklore.

Though a fire mysteriously broke out as the delegates' votes were being counted, Sr. Maluf was declared the winner by a small but incontrovertible majority. This time the

Government was faced not with a revolt of that sector of the population which might naturally be expected to oppose its policies but by a strong body of dissidents within the governing party in the most powerful and important state in the republic.

Brasilia now finds itself in an acute dilemma. "Given Sr. Maluf's controversial background it is impossible for General Geisel to allow him to take over the Sao Paulo governorship. It is equally unthinkable for him to disqualify

a duly elected candidate." one local editor commented to me. Inability of the Arena delegates is widely seen in Brazil as the clearest manifestation yet of popular weariness with a military Government whose paternalism has become all the more unacceptable as it is shown to be faltering, fallible and distant.

General Geisel's problems are now made worse by unmistakable signs of unrest within the armed forces. He has rarely consulted senior officers about major decisions, including the selection of General Figueiredo as next president. A number of middle ranking officers have in recent months been disciplined because of their public complaints about Government decisions, but that has evidently not stilled military discontent. Some dissidents claim that they are in touch with one another daily by military radio throughout the country.

But at army headquarters in Brasilia, familiarly known as Fort Apache, General Hugo Abreu, a senior officer close to General Geisel, is known to be extremely unhappy about the choice of a rough hewn cavalry officer like General Figueiredo. General Figueiredo's own remarks have appeared at times singularly ill-judged. In a recent Press interview for instance he referred to the inhabitants of the cattle lands of southern Brazil as "gigolos for cows."

add to General Geisel's headaches, the powerful Catholic Church is pressing for a better distribution of wealth. President Carter's insistent pressure for more respect for human rights together with his opposition to Brazil's nuclear deal with Germany (or any other facility which could help give the Brazilian military a nuclear weapon) also weigh heavily on him.

His only respite has been the local editor commented to me. Inability of the Arena delegates is widely seen in Brazil as the clearest manifestation yet of popular weariness with a military Government whose paternalism has become all the more unacceptable as it is shown to be faltering, fallible and distant.

The MDB, itself as heterogeneous a body as Arena, is toying with two prospective candidates: General Euler Bentes Monteiro, a retired officer reputedly of nationalist sympathies and hostile to excessive foreign control of the economy, and Senator Jose de Magalhães Pinto, an aged but astute politician, formerly a pillar of Arena.

Small share

In the last instance, however, the question of personalities is secondary. General Geisel is faced with a country of 110m people who are showing clear signs of being tired with the military, and who want to tilt the economic and political balance away from the minorities that have so far enjoyed a disproportionate share of the newly generated wealth and in favour of that majority that has been getting by on a relatively small share of the cake.

Since Brazil is the developing country with the largest outstanding foreign debt, currently estimated at around \$35bn and where many western banks are very deeply committed indeed, any marked change of direction will be of more than local interest. In the coming months the eyes of many of the world's international bankers will be on General Geisel as he tries to steer a course between handing over power to his political opponents — a thing he does not want to do — and putting them in prison — a thing no military government in Brazil dares attempt any more.

Letters to the Editor

Tax on minding the baby

From Mrs. Jacqueline Riley

Sir—I have been most interested to read recent reports of the attempts being made by a freelance lady journalist to obtain tax relief on the baby-sitting expenses she necessarily incurs in the cause of pursuing her career. As a working wife and mother, who necessarily employs a living-in nanny and a once-a-week daily help, I have long considered making a similar claim myself.

As matters stand I have to pay both my employees' wages out of income taxed at the highest marginal rate of income tax, and that income is again subject to tax and national insurance before it reaches their hands. Were I to give up my hard-won career, three more people would be added to the register of unemployed to become a charge on the state and the useful contribution which I believe I am making to society would be doubly lost.

The passing of legislation to ensure equality of opportunity and pay to women seems ludicrous when the financial, physical and social costs to married women wishing to make use of their education and to take advantage of the increasing opportunities now open to them is so enormously high.

If the presence of a person to mind the telephone in an office entitles their duties is an allowable expense then I can see no reason why the presence of a person to mind the baby for precisely the same reason should not also be an allowable expense. Jacqueline Riley, 10 York Mansions, Prince of Wales Drive, S.W.11.

Linguistic crutches

From Mr. J. L. McKeown.

Sir—Mr. Duncan Neil Dewar's cry for a movement to kick away conversational crutches of the masses (letters June 12) stimulates me to suggest that it is time for us linguistic pariahs to stand up and be counted. For too long we have accepted the role of second class speakers; ruttily aware of our verbal incapacities and cruelly conscious of the curse of certain regional accents (mine being particularly nasal). Speak out fellow sufferers; no needs the Queen's English anyway! J. L. McKeown, 17 Watlington Drive, Wetherhampton.

Sewerage and water charges

From Mr. R. W. Thirkell.

Sir—I was glad to see that Mr. Gilliland, director of finance of the Thames Water Authority, had written to you (June 6) following my letter (May 27) but did not find his letter in the last bit helpful. Whether or not the Thames Water Authority which I referred was untruthful as he a matter of opinion, but there is certainly no doubt as to whether it was misleading. As Mr. Gilliland's letter is also misleading, for the reasons given above, one is forced to the conclusion that both the leaflet and

the letter were designed to deceive the reader.

The figures I quoted in my letter (which Mr. Gilliland apparently accepts as correct) and calculations I have made relating to other London boroughs, lead to the conclusion that the average increase in charges for private dwellings for 1978-79 is probably of the order of 18 per cent for sewerage services and 18 per cent for water supply. Yet Mr. Gilliland quotes an average increase of 7.2 per cent and Mr. Thames Water publication refers to average increases of 3.4 per cent for sewerage services and 10 per cent for unamed water supply and also mentions an increase in income of 7 per cent. I should be most grateful if the differences between the level of these figures and those I have produced could be explained.

Incidentally, in case it is thought that many householders will be paying less for their Thames Water services in 1978-79, may I point out that for only very few householders indeed will the total charges have been reduced. For example, in the Boroughs of Enfield and Camden the rateable value needs to be above £12,122 and £2,000 respectively for a reduction in charges to take place. R. W. Thirkell, 3 Clifton Road, N22.

Non-verbal language

From Mr. Clifford Jackson.

Sir—May I write to commend Mr. Ron Campbell on his thoughtful and perceptive article, "The personality mix which makes for good teamwork" (June 7). He makes several points of vital importance for ensuring the performance of British top management and, in so doing, demonstrates that the successful manager has developed an understanding of what psychologists have laboriously established by painstaking experiment.

In particular, he mentions the importance of "non-verbal cues" (such as pauses or infection in speech, expression of face, gestures and posture) in communication between people. How many errors would be avoided if those who gave instructions realised that they need to check what interpretation the recipient has put upon what may seem perfectly plain and straightforward to the speaker? How many misunderstandings and even strikes could be averted if more managers made sure that those who were going to be affected by decisions understood the pros and cons of alternative courses of action, and the reasons for the course of action ultimately decided?

Incidentally, his mention of "non-verbal cues" draws attention to one of the skills which all who are faced with the task of selection would do well to study and to develop. His differentiation between "No. 1s" and "No. 2s" should also be borne in mind during selection on first appointment or promotion. The perspicacious manager and his consultant should consider possible changes in the organisation structure to make sure that company objectives are achieved without incurring interpersonal conflict between incompatibly placed "No. 1s" and "No. 2s."

personal relationships which need to be handled, and the ambience of individuals who constitute the social mix within the company and its immediate environs of suppliers, customers and neighbours.

In my experience as an erstwhile industrial psychologist and managing director of a manufacturing company, I have noticed that an awareness of non-verbal cues and the interpretation of the attitudes and motivation which they reveal, among those with whom he will be most closely involved, has a marked effect on the proportion of successful placements. Clifford Jackson, Director, Paul R. Ray International, 25 Old Burlington Street, W1.

Board room politics

From Mr. B. A. Cole

Sir—Mr. Webb-Bowen (June 8) castigates British top management for two alleged failings: being political time-servers, and not having introduced the two-tier board system. He offers no evidence in support of either reproach.

It might be expected that, as Managing Director of an Executive Search Organisation, he would be aware of the large number of board appointments which are now made using outside consultancy services. It must surely be assumed that this represents an honest attempt to find the candidate most fitted for the job. A further large number of appointments are made by promoting successful senior managers from within companies. Why does Mr. Webb-Bowen assume that the latter have "generally... become conditioned to the boat by introducing new ideas..."? 23 years in industry, I have found directors and managers generally receptive to new ideas, if they can be shown to work.

As for the German two-tier board system (not the fact that the Latin countries do not use them)—why is Mr. Webb-Bowen so convinced that this is the answer for the U.K., with our very different tradition? Why, for example, is the better the U.S. system of more independent outside directors, with real power through board committees? He claims that: "The advantage of the two-tier board system is that it allows the shareholders to draw upon a wide spectrum of outside knowledge and experience by appointing to the supervisory board non-executive directors from outside." Shareholders in the U.K. and even more in the U.S., do this now with a unitary board.

The twotier board is, as he says, well adapted to absorb "worker directors" but gives us no reason to think that this is beneficial. As for his suggestion that "the twotier board system would in any case be imposed upon us by the EEC soon enough," since less than half the members of the EEC use the system, including only one of the "big four," this seems unlikely. The danger of this sort of self-condemnation outburst on behalf of British directors is that people may come to believe it. There is surely sufficient evidence to show that our society as a whole is sick, not just our economy or industry. Furthermore, this is not just a UK phenomenon: it affects virtually all the developed free world. Our industrial problems reflect the problems in society; they are not more the fault of managers than of education, politicians and union

organisers. No more—and probably no less, but it ill behoves a managing director to assume guilt on behalf of his fellows, whether or not he accepts a share of the guilt for himself.

"Drake Wood," Devonshire Ave., Amersham, Bucks.

The number of unions

From the Chairman, Advisory, Conciliation and Arbitration Service

Sir—May I make one brief point on Mr. Lyons' letter in your issue of June 8. In dealing with trade union recognition claims a distinction has to be made between situations where only one union is making a claim and no other union is affected, and situations where a claim is being made by a union to enter an existing framework of negotiations embracing other unions. Mr. Lyons fails to make this distinction. This is the crux of the difference between us. J. E. Mortimer, Cleland House, Page Street, W1.

Commemorative issues

From Mr. W. F. Richardson

Sir—It may be true, as your correspondent, Mr. David G. Thomas, states (June 8) that the comparative failure of medals issued in commemorative medals may be due to the poor design. I do not think that this is the sole reason, however. In recent years, we have seen a spate of commemorative issues. And the same applies to stamps. The issuers have emphasised, only too often, the value of these issues in investment. They have quoted examples of the gold medals as examples of appreciating items. What they have carefully ignored is the fact that these medals have appreciated in value, not because of their medallic interest, but because the price of gold, and to a lesser extent, silver, has risen in value.

It is true that a gold medal issued twenty years or so ago is now worth several times its issue price. But these can be purchased virtually at the cost of the gold content. Anyone who purchased gold articles at the same time will have done as well or better.

Even so, another factor usually ignored is that there are two prices—a buying price and a selling price, a 50 per cent difference is not unusual. Thus, to get his money back, a purchaser has to obtain a 50 per cent increase in nominal terms plus whatever depreciation reduces the unit value of the currency by. Prices have doubled in four years. A £100 purchase, therefore, made in 1974, sold today, would need to realise £200. And this ignores other expenses such as insurance. Finally, when the Royal Mint perpetrates a confidence trick on collectors by issuing a proof silver jubilee crown, which could only be supplied after several months' wait, a year ago, and is still issuing it a year after the jubilee, who is going to trust it to cease? This year, next year, sometime never? Is it surprising that the public is becoming wary? W. F. Richardson, 34 Queen's Drive, Falmouth, Cornwall.

Today's Events

GENERAL Balance of payments current account and overseas trade figures (May).

President Nicolae Ceausescu of Romania in Downing Street talks with Mr. James Callaghan, Prime Minister. This evening the President is guest of honour at City of London dinner, Guildhall, E.C.3.

Statement expected at European Parliament, Strasbourg, by Mr. Finn Olav Gundelach, EEC Agricultural and Fisheries Commissioner, on outcome of fisheries policy talks with Mr. John Silkin, UK Minister of Agriculture.

TLC economic committee meets.

OECD Ministerial Council two-day session opens. Paris. GLC to consider plan to revitalise London dockyards with the creation of a 300-acre free trade zone for manufacturing exports. Inter-Governmental Maritime Consultative Organisation conference of some 80 nations meet in

London to discuss seamen's training and certification.

Further meeting between Fire Brigades Union and employers.

Fourth of seven fortnightly Indian gold auctions.

Publication of report of expenditure committee of National Land Fund.

Second day of international conference in Brussels to talk on economic aid to Zaire.

Sir Keith Joseph, Opposition Spokesman on Industry, is guest speaker at American Chamber of Commerce luncheon, Savoy Hotel, W.C.2, 1 pm.

Lord Thomson of Fleet at Press Association members' annual luncheon, Savoy Hotel, 1 pm.

NALGO conference continues, Brighton.

Annual report of Sir David McNeen, Commissioner, Metropolitan Police.

PARLIAMENTARY BUSINESS House of Commons: Debate on Opposition motion on the economy.

House of Lords: Internationally Protected Person: Bill, third reading. Wales Bill, committee stage.

Rating (Disabled Persons) Bill, second reading. Local Government (Amendment) Bill, second reading.

Select Committees: Expenditure, Trade and Industry sub-committee. Subject: Measures to prevent collisions and strandings of and noxious cargo carriers in waters around the UK. Witnesses: Sir Alan Marre, Commissioner for Local Administration in England (3 pm Room 7).

Shipping (10.30 am Room 16). Nationalised Industries, Sub-committee "B." Subject: Future of the electricity supply industry. Witness: Mr. David Penhalligon, MP (10.45 am Room 8).

COMPANY RESULTS Compare (half year), Robertsons Foods (full year), Wesland Aircraft (half-year).

COMPANY MEETINGS Unopposed Private Bill Committee

on Tamar Bridge Bill (4 pm Room 9). Expenditure, Social Services and Employment Sub-committee. Subject: Employment and Training. Witnesses: Treasury, Department of Employment, Manpower Services Commission (4 pm Room 15). Public Accounts. Subject: Appropriation Accounts 1977-77. Witnesses: Department of Environment, Stationery Office (4 pm Room 10). Joint Committee on Consolidation etc. Bills. Further consideration of Statute Law (Repeals) Bill (Lords) (4.30 pm Room 4). Parliamentary Commissioner for Administration (Review of Access and Administration). Witness: Sir Alan Marre, Commissioner for Local Administration in England (5 pm Room 7).

COMPANY RESULTS Compare (half year), Robertsons Foods (full year), Wesland Aircraft (half-year).

COMPANY MEETINGS Unopposed Private Bill Committee

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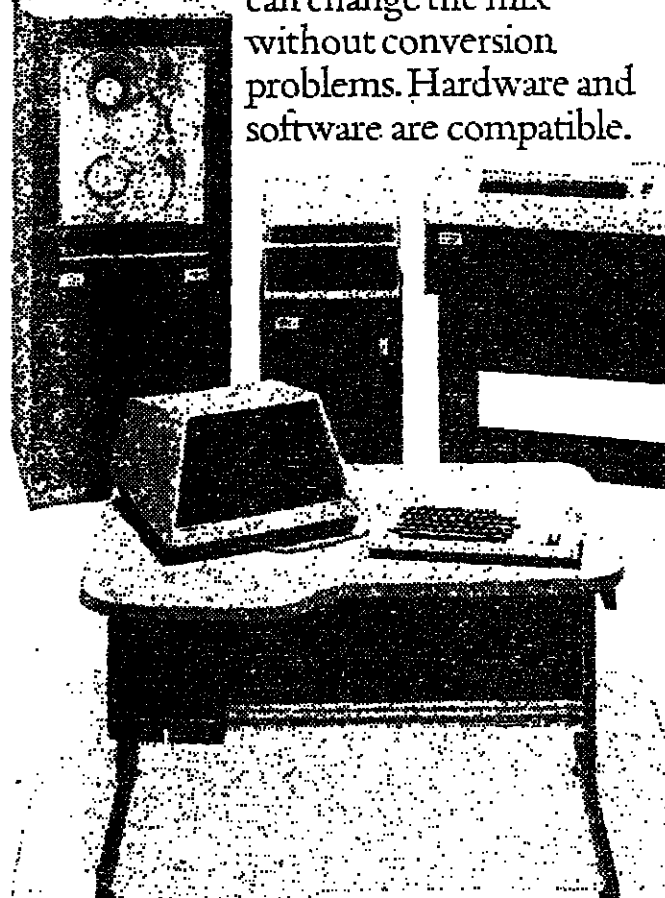
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COMPANY NEWS + COMMENT

Pegler Hattersley slumps to £12.6m

PRE-TAX profits of Pegler Hattersley for the 52 weeks to April 1, 1978, slumped to £12.6m compared with a peak of £18.1m for the previous 52 weeks, after a second half fall from £10.8m to £7.1m. Sales for the full period finished ahead at £86.93m against £80.19m.

At the halfway stage, directors said it was unlikely that the company would be able to repeat the previous year's record results. They now state that trading conditions deteriorated in 1977, particularly regarding steel valves, and that this market remains highly competitive.

At the beginning of the current year, order books are healthier overall, they add, and if the group can increase output, they say an improvement should result for 1978-79.

Pre-tax profits were struck after metal stock depreciation of £490,000 compared with £150,000 depreciation, and include lower associates' profits of £6.32m (£7.28m).

Before tax, on ED 19 basis, of £4.91m (£6m) earnings are shown as 42.9p (41.1p) per 25p share and 26.1p (41.1p) after the same. A final dividend payment of 4.35p net lifts the total from 6.88p to 7.08p.

The group manufactures domestic plumbing and heating fixtures, industrial valves and general industrial products.

Sales 1977-78 1976-77
Trading profit 50,189 50,189
Share of associates 6,320 7,280
Interest 108 108
Profit before tax 56,617 57,677
Tax 12,500 12,500
Total 44,117 45,177
Dividend 4,350 4,350
Retained 39,767 40,827

See Lex

Better start for Rugby Portland

The annual meeting of Rugby Portland Cement Company was held so far in 1978 deliveries of cement in the UK were higher for the first time since 1972. These figures showed an increase in the corresponding weeks of the previous year.

If the rate of A.C.T. is reduced, the directors intend to increase the interim dividend declared on April 17. Similarly if the scheme of reorganisation comes into effect the special participating (non-voting) dividend would be increased.

In addition, in absence of unforeseen circumstances, and subject, if appropriate, to Treasury consent, the board would take account of the A.C.T. rate reduction by recommending a higher final dividend in respect of 1978 in place of the forecast final of 2.06p.

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Empire Stores	23	4	Scott Robertson	25	1
Fine Art	22	2	Siemssen Hunter	22	4
GEI International	23	4	Sketchley	23	1
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Fine Art set for more growth

With enhanced facilities at Fine Art Developments, Mr. F. R. Kerry, the chairman, says in his annual statement that he feels the group is well placed to take advantage of any upturn in continuing demand and is optimistic that targets for increased sales and profits both at home and overseas will be met.

As reported on May 24, pre-tax profits climbed by 30 per cent to a record £4.72m, on sales of £41.87m against £38.38m. Earnings were 4.86p (4.11p) per 5p share, or without provision for deferred tax, 9.04p (8.63p). The dividend total is £3.94p (1.2012p) net.

A statement of source and application of funds shows that short-term funds increased by £778,884 (£1,033,374 decrease) at the year end.

In the UK, the group's mail order companies and those supplying the wholesale and retail markets achieved similar sales growth during the year, with the mail order companies continuing to account for the major proportion of group turnover.

Members are told that Raphael Tuck and Sons is now experiencing the full benefit of the move to Blackpool, while work commenced in autumn, 1977, on the erection of a new factory adjoining the existing Accrington premises, which it is anticipated will be completed by the end of 1978.

The cost of this development will be some £5m, but after Government grants and tax relief, the net cost will be about £2.5m to be met from the proceeds of the recent rights issue and retained profits.

An extension to the Preston premises, costing some £4.4m, is nearing completion and this again will contribute to the increased efficiency of the group, the chairman states.

During the year, overseas subsidiaries continued to expand businesses with sales increasing

35 per cent to £5.5m. Mr. Kerry explains that although they are operating at a trading profit, it was not sufficient to cover the financial costs of properties purchased with local borrowings.

However, the directors' confidence in these companies remains and they expect that in the current year overseas operations will earn taxable profits.

Brownlee down to £765,000

TURNOVER FOR the year to March 23, 1978, of Brownlee and Co., the Glasgow-based group of timber merchants, rose from £18.17m to £19.04m, but pre-tax profits fell from £1.38m to £1.05m, with £18,000,000, against £16,000,000, coming in the first 24 weeks.

Full-year earnings are shown at 5.2p (5.5p) per 25p share. The final dividend is 1.78p net for a maximum permitted 2.26p (2.05p) total.

The directors state that no appreciable improvement in the public sector of the construction industry seems likely but the prospects for private house-builders are better and the demand for the requirements of home improvements and modernisation will continue to increase.

The company, with its distribution network and extension of range of products, is well placed to take advantage of these growth areas, they add.

LONSDALE UNIVERSAL
The directors of Lonsdale Universal announce that with the exception of £1,200 of 8 per cent convertible unsecured loan stock in 1982 repaid at par, all other loan stock has been converted into Ordinary shares in accordance with the terms of issue.

As a result, 55,558 Ordinary shares of 25p have been issued against conversion, representing £23,890 Ordinary share capital. Together with recent allotments

under the employees' share option scheme, the total issued Ordinary is now £1,753,953.

Siemssen profits swing

THE CONTRIBUTION to profits from operations other than tobacco at Siemssen Hunter should for the first time amount to more than 50 per cent of the group as a whole in 1978, says Mr. Roy Siemssen, the chairman, in his annual statement.

In January the group acquired Seymour Press Group, a publishing concern which also operates a number of London hotel book-stalls under News Kiosks. Results of Seymour were not included in the group's 1977 figures but the chairman says that turnover and profits are "running in line with expectations."

The acquisition was a result of directors "actively considering further investment opportunities outside the tobacco field."

Pre-tax profits for 1977 rose from £214,531 to £251,082, as reported on April 26. Trading profits were ahead from £563,134 to £703,026.

Mr. Siemssen says that all his forecasts for the year were achieved except in the case of Autobooks where despite a good start to the year, the final outcome was disappointing. Every effort is being made to reverse the present trend, but he feels it is doubtful that this can be achieved in one year.

comment
Despite Siemssen's efforts to reduce its dependence on the tobacco industry the full report reveals that tobacco was the driving force last year. Trading profits from tobacco interests are higher by 35 per cent at £120,000 against an advance of just 12 per cent to £282,000 from publishing.

Cigars continued to show volume gains and Siemssen has been able to improve its profit margins. Meantime publishing has been held back by Autobooks.

Competition in the UK has his profits and the US venture (started in 1977) is not living up to expectations. Fortunately EP Group has shown all-round growth, particularly from its microfilming, and Lombard Vending turned round into the black, together making up for the setback at Autobooks. This year the Seymour acquisition (magazine distribution) will make an impact. After interest Seymour could chip in £350,000 pre-tax which will swing the balance in favour of non-tobacco interests.

Cigars are still registering growth and overall a pre-tax profit of over £12m this year looks likely. The acquisition will leave no net debt against £13m against tangible shareholders' funds of £2.3m. At 80p the shares yield 7 per cent.



Lord Robens, chairman of Johnson Matthey and Company—final quarter profit fell from £6.98m to £5.5m for a £18.87m (£21.02m) total.

DIVIDENDS ANNOUNCED

Company	Current payment	Date of payment	Corresponding dividend	Total for year	Total for last year
British Tar	1.3	Aug. 10	1.44	1.8	2.06
Brownlee and Co.	1.77	—	1.33	2.27	—
Corn Exchange	1.1	July 28	0.98	1.5	—
East Driefontein	40	Aug. 8	10	50	—
GEI	2.60	July 20	2.41	4.13	3.72
Johnson Matthey	7.02	—	7.19	13.62	12.3
Kloof	25	Aug. 8	15	40	—
Laganvale	4.54	Aug. 14	4.03	7.69	6.88
Record Ridgway	2.2	Oct. 2	1.5	4.3	—
Rawlinson Hotels	3.81	—	3.31	6.26	5.48
Sketchley	2.94	July 7	2.85	4.69	4.24
Venterspost	230	Aug. 8	145	385	280

Dividends shown pence per share net except where otherwise stated. † Equivalent after allowing for scrip issue. ‡ On capital increased by rights and/or acquisition issues. † Increased to reduce disparity with final. ‡ Board amendment to previously announced final. † South African cents throughout.

Record Ridgway falls by 19% at six months

With export margins depressed by the appreciation of sterling, and the fall in UK inflation leading to a cutback in demand for the Canadian dollar, the Australian subsidiary, however, suffered a setback, partly due to the depressed economic conditions and partly due to the disruptions and additional costs incurred by the move of the small Sydney operation to new premises.

With no tax charge this time compared with £215,000 net profits are little changed at £860,000 (£853,000) and after exchange losses of £2,000 (£26,000) earnings are shown at 8.1p (8.95p) per 25p share.

Mr. A. B. Hampton, the chairman, tells holders that the level of finished stocks has been increased. This has improved availability and balance of products enabling the group to give better service to customers at home and overseas. Sincere efforts are being made to stimulate late increases in demand.

Second half performance is likely to reflect the difficult trading conditions and the full year profit is expected to be generally in line with the interim results. For all 1977 a record £2.41m was achieved.

In order to achieve a more equal distribution between interim and final dividend, the directors intend to increase from 1.5p net to 2p per share. Notwithstanding the results anticipated for the current year, the directors have every confidence in the future and intend to recommend an increase of 10 per cent in the dividend for the year making a total of 4.95p (4.3p).

Six months	1977-78	1976-77	1975-76
Turnover	1,000	1,000	1,000
Trading surplus	52	1,004	2,472
Interest	12	20	82
Profit before tax	64	1,024	2,554
Tax	—	213	125
Net profit	64	811	1,429
Extraordinary items	—	2	18
Minority interest	—	—	24
Attributable	64	813	1,451
Dividend	21	124	468
Retained	43	689	983

At Record Ridgway Tools, contracts for the financing and construction of the new foundry in Sheffield have been signed and construction is now under way. In other group companies there have been mixed results. The development programme at Philips Forgings is well under way, but the disruptions caused by the changeover to new plant have significantly reduced its contribution. The South African company made an excellent recovery despite the unsettled economic and political climate. In Canada the volume of sales

IN BRIEF

BANK OF IRELAND—Results for 1977 reported in full preliminary statement on May 10. Current assets £2,620m (£1,080m), current liabilities £1,800m (£1,100m). Increase in advances to customers, other banks' assets and liabilities of £52.1m (£22.2m). Net income £1,820m (£1,080m). Dividend £1.25p (£1.25p). Tax £4.9p (£5.2p). Net revenue £1,771m (£1,075m). Valuation £1.4m (£1.4m). Net assets £1.4m (£1.4m). Net equity £1.4m (£1.4m). As known interim dividend 1.5p per share (£1.25p).

LONDON TRUST COMPANY—Results for March 31, 1978, reported May 14. UK quoted investments £48.2m (£28.0m), overseas £1,360m (£1,138m). Unquoted UK £1.1m (£1.1m), overseas £124.4m (£129.7m). Net current liabilities £5.3m (£6.7m). Decrease in liquidity for year £11.5m (£3.2m) decrease. Net income £2,230m (£1,935m). Net equity £1.4m (£1.4m). As known interim dividend 1.5p per share (£1.25p).

WIM GROUP—Results for February 28, 1978, reported June 2, with comments on prospects. Fixed assets £28.2m (£21.4m), net current assets £2,230m (£1,935m). Net equity £1.4m (£1.4m). As known interim dividend 1.5p per share (£1.25p).

Johnson Matthey slips to £18.9m

AFTER £10.02m against £9.14m at mid-year and £13.37m against £14.03m at the nine-month stage, pre-tax profits of Johnson Matthey and Co. finished the year at £18.87m, down from £21.02m. Sales, excluding Johnson Matthey Bankers, expanded from £370.39m to £427.01m.

Tax takes £9.84m (£10.53m) and minorities £207,000 (£24,000) and there was an exchange loss of £1.78m compared with a gain of £2.25m leaving the attributable balance at £7.03m against £13.65m. Earnings are shown to be down from 61.3p to 51.9p per £1 share. The dividend total is lifted from £2.3054p to 1.6183p net with a final of 7.6183p.

Progress at Cadbury Ireland
Mr. R. A. Sellers, the chairman of Cadbury Ireland, a member of the Cadbury Schweppes Group, says that the Irish economy appears to be making progress in 1978 and that the company's performance to date reflects both this trend and the benefits of its own input in previous years.

He tells members in his annual statement that as a result of measures taken, the company is now steadily moving towards becoming a more efficient and well equipped unit, capable of operating in more competitive conditions. And it adds that the company is confident.

As already known pre-tax profits for 1977 rose from £1.47m to £2.49m on turnover up nearly £20m to £28m.

The company more than maintained its share of the chocolate market, which continues to be the most important sector of the business. Mr. Sellers says Cadbury also maintained or improved its position in virtually every other market it operates in.

Export sales reached a record £55m for 1977, and the continued development of this business, he says, is essential for the steady growth of the company.

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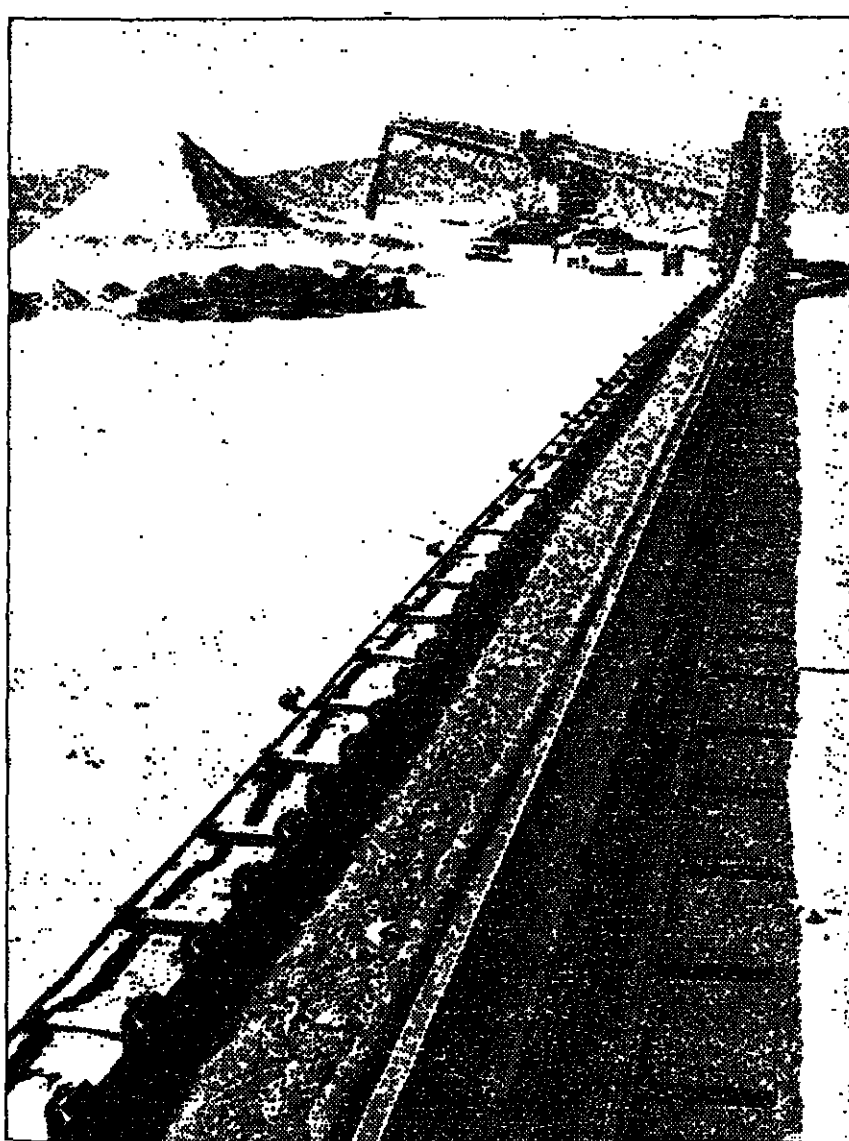
Export sales reached a record £55m for 1977, and the continued development of this business, he says, is essential for the steady growth of the company.

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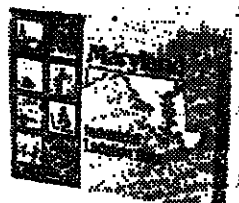
BTR belting at a copper mine in the Arizona desert.

BTR stands for growth

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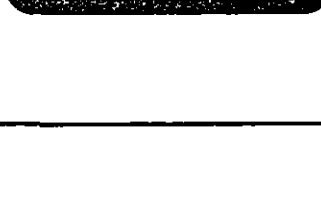
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GARNAR SCOTBLAIR LIMITED

Tanners & Leather Manufacturers

	1977	1978
Turnover	£30,759	£21,146
Trading Profit	2,083	1,780
Profit before Tax	1,279	1,124
Profit after Tax	934	1,096
Dividends	197	107
Net Assets	6,314	4,566

Highlights from the Statement by the Chairman,
Sir Kenneth Newton, Bt., O.B.E., T.D., for the
year ended 31st January 1978.

- Final dividend of 2.75p per share is recommended making a total of 4.50p for the year.
- Exports rose to £11.2 million.
- The fact that we supply so many differing industries and export such a high proportion of our products to many overseas markets assists us in overcoming the cyclical pattern of the leather industry.
- Acquisitions were made during the year in furtherance of our policy of ensuring that adequate supplies of raw material are available to the Group from U.K. sources.
- Our leather interests have been expanded by our acquisition of Wilson & Tilt Limited. All the tanneries have been busy throughout the year.
- There is increasing interest in our Chamois leathers of which we are the leading manufacturer.
- Future prospects are encouraging, even though profit margins may be more difficult to maintain, due to the instability of raw material prices, the fluctuations in rates of exchange and the general economic uncertainty.

GARNAR SCOTBLAIR LIMITED
The Grange,
Bermondsey, London SE1 3AQ.

BIDS AND DEALS

E & G/County & Suburban announce new merger plan

BY JOHN BRENNAN, PROPERTY CORRESPONDENT

THE LONG and occasionally acrimonious courtship of Mr. Peter Prowling's private property development group County and Suburban Holdings and the publicly quoted Estates and General Investments may yet have happy ending. E and G announced details of a new merger plan yesterday, which appears to satisfy the criticisms that killed the last merger scheme in 1975.

The new merger terms are structured in the form of a reverse takeover by E and G of County and Suburban, which is 85 per cent owned by Mr. Prowling and 14 per cent by Guardian Royal Exchange Assurance. It is proposed that E and G will acquire the whole of County and Suburban with the issue of 7.88m new 20p shares and a new 10 per cent unsecured loan stock, 1982.

This would give Mr. Prowling's group 41.8 per cent of the enlarged group, and added to his existing 39.9 per cent share of E and G's existing shares. Mr. Prowling and his associates would end up with 81.8 per cent of the enlarged group, and the combined group would have properties of just under £13m and a net worth of £7,02m, 39.8p a share, and a 25.8 per cent increase in net assets for existing E and G shareholders. The board also

recommends a 20 per cent increase in 1977 dividends to 1.2p a share net on the enlarged equity.

John Lawrence, E and G's chairman, said yesterday that "this is a natural marriage and will give us tremendous advantages in improving the portfolio balance, enhancing the company, and making management more efficient."

Mr. Lawrence said that the Board advised by Lazard Brothers recommended acceptance of the merger terms which will be considered at an EGM at Winchester House, EC, on Thursday June 29.

For the first time the Takeover Panel has insisted on a poll vote rather than the usual show of hands, and neither Mr. Prowling nor his associates will be allowed to vote their near 40 per cent shareholding.

However, the points that sparked fierce resistance to the 1975 merger talks seem to have been ironed out in the current proposals. Opposition to County and Suburban's approach in 1974 focused on Mr. Prowling's plan to transfer 23.4m of his personal guarantees on bank loans made to cover private property developments to E and G. This time the County and Suburban shareholders to which these guarantees attach is excluded from the proposals.

In 1975 E and G shareholders also looked askance at a County and Suburban trading loss of £208,000 in the first eight months of 1974, and reasonably questioned whether Mr. Prowling had designs on E and G's 21m cash balances. Now County and Suburban comes to the proposals showing

1977 pre-tax profits of £193,000 and a considerably less heavily geared balance sheet. In 1977 E and G reported pre-tax profits of £332,000.

Mr. Lawrence has had informal discussions with the Takeover Panel's permission with the founders of the Association of E and G Stockholders, the group that played the major part in rallying opposition to the earlier proposals. The chairman says that as a result of these talks he does not expect organised opposition to the new plans.

One slightly ludicrous aspect of the whole business is that Mr. Prowling and his management team have been running E and G for the past three years under a £42,000 a year contract agreed at the time of Mr. Prowling's acquisition of a near 30 per cent stake in the group. Last December shareholders permitted him to increase his holding to 39.9 per cent to resolve a three year old legal wrangle with former directors' family trusts.

If the merger plan is agreed by shareholders, E and G's shares, suspended at 20p today, will be required on July 3.

Mr. Prowling said yesterday that if the merger works he will be looking for another quoted property company to further expand the group. "It is not my final object to end up with 60 per cent of E and G. If we can get it moving I'd be happy with a smaller share of a far larger company."

Saint Piran chief resigns

THE MANAGING director of Saint Piran, Mr. Peter Adie, has resigned from the board. He has also resigned from the subsidiary and associated companies.

Saint Piran, the mining and property development group, has been under fire since its takeover because of its 28.85 per cent stake in A. Monk, the civil engineer and building contractor. Both the board and a union at A. Monk have been hostile to this stake.

The official statement from Saint Piran said yesterday that Mr. Adie had resigned "in order to pursue his private interests."

Neither Mr. Adie nor any of his fellow directors were available at the company's offices to add any further explanation.

Saint Piran's stockbroker, Joseph Sebag, said it had "no idea" about the background to the resignation. In September last year Sebag floated on the Stock Exchange South Crofty, a tin mining associate company of Saint Piran of which Mr. Adie was a director. Sebag agreed that it

was unfortunate that a director should resign from a company recently floated. Mr. Adie's services to South Crofty were not essential since he is not a mining expert.

CONSORTIUM HAS OVER 50% OF LONDON & LPOOL

A consortium of companies which was instructed by the City Takeover Panel to make a full bid for London and Liverpool Trust has increased its stake in the investment trust to just over 50 per cent.

The consortium, which is headed by South African interests, said yesterday that its offer had gone unconditional.

The consortium was instructed to make a full bid for the investment trust after the Takeover Panel decided that certain companies had acted in concert with the trust's directors to acquire two subsidiaries of the South African group W & A Investment Corporation in achieving a joint stake of 47.8 per cent.

The bid price was 21p a share which valued London and Liverpool at £523,000. The consortium which consists of W and A SA Zug, Aschheim Securities, London Consolidated Properties, Ströler Securities and Virgo Corporation received acceptance representing 3.22 per cent of the trust.

SHARE STAKES

De Vere Hotels and Restaurants: Mr. L. Muller and Mr. A. T. W. Harvey have sold 30,000 shares out of their joint holding.

British Electric Traction: Mr. G. R. A. Metcalfe, a director of Advance Laundries, a subsidiary of BET, has acquired 51,300 deferred ordinary shares at 46p under BET share option scheme.

Gaerne Photographic Products: Mrs. H. J. Reed, director, between January 30 and May 15, sold 30,000 shares. Mr. J. S. Halliwell, director, between May 10 and 24, bought 19,900 shares. Mr. T. Brass, director of Mrs. K. M. Brass, director on May 28, bought 500 shares.

Edinburgh Ice Rink, Paisley Ice Rink has acquired a further 2,070 shares. In addition 1,000 shares have been acquired by Glasgow Tullis Enterprises, of which J. Glasgow is chairman. When added

to Mr. Glasgow's personal holdings and those of Scottish Ice Rink (1928) which he also controls, this brings his interest in Edinburgh Ice Rink to 28.17 per cent.

Pennine Motor Group: G. Tankard has sold 45,000 shares. Major E. H. Marley and associates have sold 65,000 shares.

Capital and National Trust: Standard Life Assurance Co. on June 6 bought 20,000 shares in the company, which is valued at 16p a share, for £3.2m.

Tribune Investment Trust: Sir Rex Cohen, director, on June 6 disposed of 32,120 shares at 84p.

Right Cooper and Co.: Miss J. Gough Cooper has sold 23,000 shares.

Restair: D. Hargreaves, director, has sold his rights to 74,800 new shares at 114p premium. R. Hargreaves has sold his rights to 23,000 new shares at 111p premium.

Australian and International Trust: United Kingdom Temperance and General Provident Institution holds 545,000 shares (9.08 per cent).

Yeoman Investment Trust: The Prudential Assurance Co.'s holding of 545,000 shares now represents 8.99 per cent following this year's conversion of 41 per cent of the trust's shares into Practical Investment Fund's holding of 372,000 shares representing 9.43 per cent.

Reed International: Mr. G. S. G. Witherington, a director, has disposed of his interest in 20,000 shares for no consideration. His interest in these shares is non-beneficial as a trustee.

Southern Construction (Holdings): Kulim (Malaysia) Berhad has sold 50,000 shares, reducing its holding to less than 5 per cent.

M. P. Kent: The trustees bought 20,000 shares at 35p for discretionary trust under which Mr. G. A. Higgins's dependants are beneficiaries.

KNOTT MILL

Knott Mill, the carpet retailers, announced yesterday that it was involved in discussions which might lead to a bid being made for the company. The shares were suspended at 17p, valuing Knott Mill at £536,500.

Tenneco to see Albright union chiefs

AN EXECUTIVE vice-president of Tenneco which is proposing to make an agreed bid for Albright and Wilson, will meet with union chiefs to discuss their objections. The heads of the five major unions are being invited to join him and Mr. David Livingstone, managing director of Albright, tomorrow evening.

Union objections to the takeover because it will receive some of the cash flow coming from the North Sea oil interests, Tenneco regards this as good for Tenneco and good for the UK. As for the immediate interests of employees, a commitment to respect their existing rights has already been made. Tenneco argues that since the management will not be changed, employees need not fear any change of policy which would adversely affect them.

As well as meeting the union chiefs, Tenneco is to send a letter to all employees, signed by Tenneco's chairman, with further information on the proposed bid.

Mr. David Livingstone will probably meet the Office of Fair Trading and the Department of Industry after the union meeting.

The OFT is expected to make its recommendation about referring the bid in the middle of next week.

ARMSTRONG OFFERS ALTERNATIVE

Armstrong Equipment has no intention of revising its offer for Cornecroft, which includes a 10p cash offer and a 10p share offer for each 20p Cornecroft share.

The share alternative revealed for the first time in the formal offer document sent to shareholders yesterday is worth 65p per Cornecroft share based on the middle market price on June 9. As announced on May 30, Armstrong Equipment is bidding 65p cash for Cornecroft.

Drake & Scull chairman buys 0.25m shares

Mr. Michael Abbott, chairman of Drake and Scull, chose to announce yesterday that he has agreed to buy 250,000 shares in the company because that was the day of Tarmac's AGM.

Mr. Abbott was concerned that further statements could be made by Tarmac which would affect Drake and Scull's statements at the interim stage last year. At that time Tarmac said some losses might be recoverable from Drake and Scull through general warranties relating to the purchase of Holland, Hannen and Cubitts from Drake and Scull in 1976.

According to Mr. Abbott, the standing of Drake and Scull and the recovery underway was hindered. So he took the "precaution" of announcing yesterday the purchase of further shares in the company.

Mr. Abbott also wanted to acquire a substantial stake in the company which, he said, is "making an extremely effective recovery."

The shares were bought from Mr. Robert Pote, a former chairman of Drake and Scull. The price was negotiated several weeks ago, since when it has weakened.

Also announced yesterday was the sale of 25,000 shares by Mr. Hevalier, A. A. Hevalier, a director, at 24p. This took place on April 28. Then on May 31, Mr. Malevez transferred 100,000 shares from non-beneficial to beneficial.

ALEX. HOWDEN'S SOUTH AFRICAN PURCHASE

Alexander Howden, the international insurance broker with interests in banking and shipping, has bought a controlling stake in Wellworth Stores and Bazaars, a South African quoted company, for just under £700,000.

Through its Bermudian subsidiary Alexander Howden Group (Bermuda) Howden has purchased 1.5m ordinary shares, representing 80.6 per cent of the Wellworth equity, for R9.95 per share and 78,000 6 per cent cumulative preference shares at R1.50 per share.

Howden has offered to purchase the remaining ordinary and preference shares at the same price.

Wellworths is effectively a "shell" company but has assets of R1.53m which includes some R1.4m of short-term cash deposits. So Howden looks to be buying at a discount.

The move is designed to provide a holding company for the group's recently established South African operations, which included the purchase of a 20 per cent stake in Marine and Trade Insurance, a local short-term insurer. Howden intends to change the name of Wellworths to Alexander Howden Group South Africa and to discontinue the new company will acquire the group's existing South African interests, which are expected to contribute around £500,000 to pre-tax profits in the current year.

RIVLIN SUSPENDED

Shares of L. D. and S. Rivlin were suspended yesterday as the group announced that the Midland Railway had appointed a receiver for all its North East retail interests—the largest of which is Sachs and Sherman.

Problems in the North East have been the major cause of group pre-tax losses of £56,000 in 1977 and £118,000 in the first half of the current year.

The group is an importer and wholesaler and retailer of clothing and textiles. Its shares were suspended at 18p down 1p yesterday.

ASSOCIATES DEAL

Stancliffe Todd Hodgson purchased on behalf of Mr. Nicholas Foot, chairman of Northern Footwear, 5,000 shares, non-voting, in Park Farm at 64p yesterday.

A resolution will be put to holders of the 5 per cent convertible unsecured loan stock 2000-05 of ITC proposing the conversion at the current rate of all the loan stock into ITC ordinary (an effective conversion price of 192.3p per ordinary).

The resolution will be subject to the ordinary offer becoming unconditional, and if it is passed, shareholders will be eligible to accept.

To provide the cash consideration underwriting arrangements are being made for Carnegie and Co. and Fenner and Boyle to subscribe for new ordinary stock units of Barclays at 200p net cash per ordinary stock unit. The cash alternative under the offer will only be available until the first closing date.

Barclays has entered into an option agreement with the trustees of the Post Office Staff Superannuation Fund. Under

MINING NEWS

Amax recovers after a poor first quarter

BY KENNETH MARSTON, MINING EDITOR

AFTER a poor first quarter, when earnings were hit by the U.S. coal miners' strike, the diversified U.S. Amax minerals group looks for a good recovery this year, reports Paul Cheswright from Frankfurt.

Yesterday the group moved to sharpen its profile in Europe by taking a listing on the Frankfurt stock exchange. Trading in the shares opened at DM 72. A Vienna listing will be granted tomorrow, bringing the number of Amax listings in Europe to seven.

Mr. Pierre Gousseland, the Amax chairman, said: "The recovery will be based on an increase in coal production above 1977 levels, as well as continued strong markets for molybdenum, oil, and gas. We also expect reasonably improved markets in many of our other operations."

This relative optimism was based on the assessment that growth in the U.S. economy in the last three-quarters of this year should be about 5 per cent. Capital investment is starting to improve, said Mr. Gousseland.

At the same time, he reflected the pervasive industry gloom about rising costs. "Some metals may become uneconomical to produce, without corresponding equalisation in their market price," he warned.

In a survey of group activities, Mr. Gousseland disclosed that Amax could make, within the next two months, a decision about the re-opening of an open-pit molybdenum mine in British Columbia, which could add 100,000 tons of molybdenum concentrates annually. Proven and probable reserves so far are 105m tons grading 0.192 per cent.

Reserves at the Mount Emmons mine in Colorado are now only 15m tons grading 0.43 per cent, but the extent of the mineralised zone has not yet been fully defined. It is not likely to be ready for production for at least six or seven years.

Last year, Amax had a pre-tax loss of \$29.5m on its nickel operations. But this year the loss will be reduced to under \$10m, Mr. Gousseland said. World copper consumption this year could exceed production by 20-30m tonnes in 1977.

Amax coal production in the U.S. this year should reach 40m tons. This is 3m tons more than in 1977, following the miners' strike in 1977.

Income should be a record in 1978, he said. The Newman iron ore operation in Western Australia, where Amax has a 25 per cent stake, total shipments this year are expected to be 28.5m tonnes in 1977.

Mr. Gousseland said that tungsten's contribution to earnings would rise following Amax's increased interest in Canada Tungsten Mining. He added that production of Canada Tungsten would double in 1978.

Amax, which Gousseland called "not the first, the second largest producer of tungsten in the free world," is very enthusiastic about the future of tungsten, he said. Amax holds the largest known deposit of tungsten in the Western world in the Polar Circle, but has not developed it because of large U.S.

Government stockpiles. He said the stockpiles are being reduced and work on the Polar Circle deposit might start in 1980. "The demand for molybdenum, the tungsten, is a factor of strength for Amax," he said that last year world consumption rose by 4m lbs to 7.5m lbs from 6.4m lbs in 1976.

He added that capital expenditures would moderate during the next few years. They were \$23m in 1977, compared with \$33m in 1976 and \$55m in 1975. Total capital expenditures of the group over the next five to six years should be about \$26m, including \$400m in 1978.

While capital expenditures will be less, Mr. Gousseland said, pre-tax earnings from operations will accelerate after making provision for depreciation and depletion charges.

AMAX OFFER FOR CAN. TUNGSTEN

The Toronto Stock Exchange has accepted the notice by Amax of the latter's cash offer to buy up 900,000 shares of Canada Tungsten Mining shares at a price of \$2.50 per share. Amax already owns 2.43m shares of Canada Tungsten, or 48.6 per cent of the equity. A further 1.5m shares, 30 per cent, are held by Dome Mining. The latter has advised the stock exchange that it will not tender any of its Canada Tungsten shares under the Amax offer.

West Drie beats the band but East Drie lags

SURPRISES, good and bad, are thrown into the ring by the Consolidated Gold Fields group's half-yearly gold-mining dividends. The best news comes from the major mine, West Driefontein, which is declaring an above expected final of 250 cents (157.5p) to make a total for the current year to June 30 of 355 cents against 280 cents for 1977.

Disappointment, on the other hand, will be felt over the interim dividend of 40 cents declared by the relatively young and top class mine, East Driefontein. Estimated to have ranged up to 60 cents for this currently popular producer which paid a total of 78 cents for 1977.

Among other payments, the final of 25 cents declared by Kloof, which is declaring the ninth forecast for a mine which has not fulfilled market expectations, but the latest payment makes a total of 40 cents for 1977-78 against 30 cents.

The latest payments are summarised in the following table.

	Jan. 1977	June 1977	Dec. 1977	June 1978
West Drie	78	78	78	78
East Drie	40	40	40	40
Kloof	25	25	25	25
Libanon	20	20	20	20
Venterspost	20	20	20	20
W. Driefontein	20	20	20	20
E. Driefontein	20	20	20	20

W. Driefontein is declaring a below-expected 30 cents, to make 50 cents against 15 cents, while

Libanon's final of 60 cents is a minimum expectation and makes a year's total of 100 cents against 45 cents. Venterspost, however, has beaten the pundits with the final of 25 cents to make 25 cents against only 5 cents for the year to last June.

Most of these extra deliveries will be made from stock. Production at the mines is not expected to be more than 18.5m tonnes this year. The mines will close down for eight or nine weeks in the summer. At the same time, the production of the group is expected to be more than 18.5m tonnes this year, the lowest level since 1965.

The interim report notes a "positive" reduction in production costs during the four months, but higher rail transport and pension costs have worked in the opposite direction. The group's evaluation in the 1977 account was also too optimistic and in conformity with actual price developments. LKAB anticipated that it will cost less to produce a tonne of iron ore than it did in 1977, the net asset value per ITC ordinary (fully diluted) after deducting prior charges at redemption prices, and after providing for all contingent liabilities including capital gains, is 261.2 pence.

The production cuts and the stock reduction are having a favourable effect on the group's liquidity. LKAB's Treasury department says that investments this will reduce the borrowing requirement for 1978.

Barclays offer terms for ITC

THE DEAL announced yesterday for the acquisition of the investment Trust Corporation (ITC) by the Post Office Staff Superannuation Fund through Barclays Bank involves an agreed offer by Barclays for the whole of the issued share capital of ITC.

The offer is being made on the basis of 88 ordinary 11 stock units in Barclays Bank or 254 cash or 100 25p ITC ordinary. Barclays is also offering 100p cash for each 3.15 per cent cumulative preference share of £1 in ITC.

A resolution will be put to holders of the 5 per cent convertible unsecured loan stock 2000-05 of ITC proposing the conversion at the current rate of all the loan stock into ITC ordinary (an effective conversion price of 192.3p per ordinary).

The resolution will be subject to the ordinary offer becoming unconditional, and if it is passed, shareholders will be eligible to accept.

To provide the cash consideration underwriting arrangements are being made for Carnegie and Co. and Fenner and Boyle to subscribe for new ordinary stock units of Barclays at 200p net cash per ordinary stock unit. The cash alternative under the offer will only be available until the first closing date.

Barclays has entered into an option agreement with the trustees of the Post Office Staff Superannuation Fund. Under

this, subject to the ordinary offer becoming unconditional, Barclays will have the right to sell for cash and POSSF will have the right to purchase for cash any ordinary and preference shares in ITC acquired by Barclays at 244p per ordinary and 100p per preference.

If the option were exercised, Barclays would receive cash proceeds of some £95m which it intends to use in further expansion of its business.

The Barclays Board intends to pay in October 1978 an interim ordinary dividend of 6.05p net for the year ending December 31, 1978 (4.5p), and in the absence of unforeseen circumstances, to recommend a final dividend of not less than 7.2089p net (5.5491p), expected to be paid at around the end of April 1979.

This represents an aggregate increase of 20 per cent over the dividends paid for 1977. If the applicable ACT rate is altered (as envisaged during the current financial year), Barclays intends to adjust the final dividend accordingly.

The ITC ordinary and preference shares will be acquired by ordinary ITC holders on the register at June 12, 1978, who accept the ordinary offer to retain the proposed final dividend. It is not which the ITC directors have recommended, and except for the right of ordinary holders to ordinary to do likewise.

J. Compton, Sons & Webb (Holdings) Limited

A powerful boost from exports

	1977	1978
Sales	18,469	19,126
Operating profit	1,816	2,384
Profit after tax	901	1,191
Dividends per ordinary share	74.1425%	12.8565%
Earnings per ordinary share	5.23p	6.94p
Net asset value per ordinary share	45.72p	42.35p

Points from the review by the Chairman Lord Chelwood:

- * It has indeed been a challenging year.
- * A powerful boost came from exports which trebled, rising from £564,000 to £1,778,000.
- * The Marketing Company continues energetically to make progress in the UK and overseas.
- * Exports expected to double during 1978.
- * Longer term prospects are very encouraging.

Copies of the Report and Accounts may be obtained from The Secretary, 18 Fitzroy Square, London W1T 4JH.

Brit. Land stake in Churchbury Estates

FOR THE fourth time in just over a year British Land has taken a strategic stake in a smaller property company through a share issue on two of these occasions the group has resold its holdings for cash, making a nice profit into the bargain.

Mr. John Ritblat, chairman of British Land announced yesterday that the group had acquired a 15.8 per cent holding in Churchbury Estates in return for a 3 per cent stake in British Land. McLeod Russell, the tea company, already holds a 19 per cent interest in Churchbury and the property company's share price rose 11p to 288p yesterday on news of this second major holding.

British Land's share price last night was 34p valuing its Churchbury holding at almost £840,000—258p a share. Last month the group acquired all the equity capital of Wellgrove Property Investment by issuing £15,000 of its own shares in a deal valued at £33,000.

British Land is fast achieving the reputation of a shrewd operator by way of its property share deals. Just over a year ago it acquired a 15 per cent holding in Bridgewater Estates in a deal worth 212p a share. Five months later it sold this stake for 259p a share.

This was followed in January this year by the purchase for shares of an 18.3 per cent holding in Property Investment and

Finance only to sell the holding for cash and make a £30,000 profit—to Castlemere Properties which was planning to make a full-scale bid for PIF.

Mr. Ritblat said yesterday that it was not corporate policy to buy shares just with a view of a potential resale value. "We are just as much concerned with income and make investments in companies which we think are attractive and where there is a suitable discount to assets. However, if an offer is subsequently received we would only be available on its merits," said Mr. Ritblat.

The most interesting aspect of this latest deal will be McLeod Russell's reaction to a rival stake similar in size to its own.

Loh

The annual report for the year 1977 of

Leveraged Capital Holdings N.V.

has been published and may be obtained from
PIERSON, HELDRING & PIERSON N.V.
Amsterdam.

Stock Exchange List coverage extended

The Stock Exchange Official List now carries on its back page prices of daily dealings in securities not listed on the Stock Exchange but traded under the Exchange's rule 183 (2). This new service is part of a Stock Exchange move to increase general awareness of its members' ability to arrange transactions in unlisted securities.

The S.E. chairman, Mr. Nicholas Goodison, yesterday presented a pamphlet which spells out the features of the Exchange's unlisted securities market. The pamphlet, it is said, has been sent to 2,000 unlisted companies, and to appropriate lawyers, accountants and merchant banks. It points out that the volume of daily dealing under 183 (2) is now considerable, and that some 800 companies have had their shares traded in this way in the past five years.

The S.E. is promoting the facility partly because the number of new listings on the Exchange has fallen away markedly since 1974 and partly in the words of Mr. Goodison, "because the Wilson Committee has provided us with greater public exposure of this market."

This committee, which is examining the financial institu-

tions, has noted a number of suggestions that an "over-the-counter" or "two-tier" market should be developed to cater for the needs of small companies and investors who want to buy or sell shares in them.

While the S.E. provides a procedure under which its members may trade unlisted securities, Mr. Goodison stressed that it was up to the member firms to provide competition for the so-called "OTC market" run by M. J. R. Nightingale, the investment banker. A member firm can do anything Nightingale does," he explained. But it was not the Stock Exchange's function to force them to do it.

In dealing under 183 (2) the quality of the transactions are maintained by SE regulations, but the quality of the securities traded are not. On the one hand, the SE rules oblige the broker to obtain the best possible deal for his client. Each deal is monitored by the Exchange, and protection against the failure of an exchange member is available under the Exchange's Compensation Fund. On the other hand, there is no formal relationship between the Exchange and an unlisted company. It is ready up to the broker to make sure that

the company whose shares he decides to trade, or to promote, gives out sufficient information about itself.

The essential features of dealing under 183 (2) are:

- 1-The broker, acting as an agent, will normally find both buyer and seller and negotiate the deal through a jobber. Alternatively, the broker may notify a jobber of his interest and the jobber may satisfy it himself or try to find a seller or buyer through another broker.
- 2-Provided normal registration procedures are available, transactions can take place entirely independently of the company and without reference to it.
- 3-A broker has to get permission to carry out each transaction from the Stock Exchange. This does not cause delay and no action is required on the part of the investor.
- 4-All contract notes for transactions in unlisted shares carry the statement that they are not listed on any stock exchange. Nevertheless contracts are subject to the rules and regulations of the Stock Exchange.
- 5-A stockbroker will charge normal commission but no charges are levied on companies by the SE.

Scott & Robertson to expand

A slow start, it is expected that there will be a progressively higher demand for the textile products of Scott & Robertson, particularly in the home market, Mr. B. Pirie, the chairman, says in his annual statement.

The group's packaging interests will also benefit from the anticipated higher level of economic activity, he says.

The mills and factories are now working, with few exceptions, at a good rate of activity while generally production efficiencies are satisfactory.

The board is actively pursuing plans to widen the range of the group's operations with the object of both raising the profit base and reducing the fluctuations in profit which have been all too evident in the past, the chairman says.

For the year ended February 24, 1978, pre-tax profits were down from £785,889 to £522,203. The dividend is 27p (1977: 25p).

Turnover for the year was £18,085m (£18,041m). The contribution from the UK was £13,377m (£13,709m); Europe, £4,231m (£3,666m); and other overseas territories £2,477m (£2,666m).

Mr. Pirie says the year has been described as one of the worst years in living memory for the carpet industry and as approximately 60 per cent of the group's business consists of the supply of products to the floor-covering industry, it was inevitable that the profitability of the group would be affected.

Exports, though buoyant, suffered intense competition with low margins and could not compensate for the depressed conditions in the home market.

1978 lowest point in this recession.

was experienced in the middle of the summer of 1977 when, due to the poor demand, some works remained closed for an extended annual summer holiday.

In the third quarter there were welcome signs of a recovery in home demand and by October this improvement was definitely established and, through the remaining months of the year, better trading conditions were maintained.

During the year prices of polymers declined. As a result of weaker prices some stock loss occurred in the first half. Raw jute prices, which hitherto had remained remarkably stable compared to other commodities, advanced sharply towards the end of 1977.

There has been a succession of small jute crops and it was considered prudent to carry over time an above normal stock, the chairman states.

The next jute crop has now been sown and there is a general expectation that, given normal weather conditions, the output will be larger and should alleviate the current tight supply situation.

Mr. Pirie is retiring as chairman and the present vice-chairman, Mr. J. R. Scott, will succeed him. Mr. K. S. Houghton took over from Mr. Pirie as chief executive in March this year.

Meeting, Dundee, July 7, at noon.

Tomkins well ahead so far

Pre-tax profits of Tomkins Carpets advanced from £42,000 to £59,000 in the 26 weeks to April 1, 1978 on turnover of £3,311m against with £5,631m for the comparative 25 weeks.

After tax of £31,000 (£23,000) and an extraordinary credit last time of £54,000, the attributable balance is £48,000 (£73,000).

The profits before tax which are the best since 1975 have been achieved against the trend of declining profits shown by some of the recently published carpet manufacturers' results, the directors point out.

In the turn around has been accomplished and the division is now trading profitably. Steels Carpets and Mid-Wales Yarns have also traded satisfactorily. The Axminster division, however, continues to find market conditions generally difficult, which has been illustrated by the recent closure of one substantial competitor.

The directors say that the second half has started reasonably well and if the trend continues the company should show an improvement over last year's results, when pre-tax profits came to £178,900.

The directors have been, and are continuing to be active in worldwide investigations into new sources of profit for the group and "no worthwhile possibility is allowed to pass without the most careful evaluation."

COUNTER-INFLATION ACT 1973

The Treasury have given consent to the declaration by the following companies of dividends of the total amounts specified for the financial years ending on the specified dates:

Company	Dividend	Date
Georg Leisure Group Ltd.	£1,375,684	29.12.77
Inter-City Investment Group Ltd.	£1,284,773	31.12.77
G. & W. Walker Holdings Ltd.	£1,212,278	28.12.78
The Dutton-Forsyth Group Ltd.	£1,075,887	31.12.77
Capital & Counties Property Company Ltd.	£1,940,808	25.3.78
Keyser Ullmann Holdings Ltd.	£521,451	31.3.78
British Syphon Industries Ltd.	£297,329	31.12.77
Fine Art Developments Ltd.	£1,273,574	31.3.78
Dwek Group Ltd.	£22,500	31.12.77
Camden Group Ltd.	£653,429	31.3.78
The Sheffield Brick Group Ltd.	£85,250	31.12.77
Bealey Holdings Property Company Ltd.	£807,516	31.12.77
Sumrie Clothing Ltd.	£56,818	1.4.78
Cadette & Chemical Products Ltd.	£3,104,241	31.3.78
Eva Industries Ltd.	£580,564	31.3.78
Leaderbury (Holdings) Ltd.	£10,000	31.12.77

Published by the Treasury as required by the above Act

The Orion Insurance Company Limited

1977: Profit maintained despite adverse trading conditions

- Profit before tax £3,642,000 (1976: £3,624,000)
- Investment income up 13% on comparable basis
- 1975 marine and aviation underwriting accounts produced satisfactory profits
- The expansion of the London non-marine account continued as planned
- Home fire and accident business resulted in a loss—mainly incurred in the motor account

	1973	1974	1975	1976	1977
£'000	£'000	£'000	£'000	£'000	£'000
Total premiums	16,100	17,012	19,472	24,936	26,479
Investment income	2,175	3,284	3,536	4,143	4,393
Underwriting Profit/Loss	770	1,185	1,281	4	-256
Profit before tax	2,561	4,043	4,188	3,624	3,642
Shareholders' Funds*	7,377	8,007	9,022	14,500	15,745
Total Assets*	54,709	57,603	69,001	90,644	90,664

*The figures for 1976 and 1977 include investments at market values which exceed book values.

Copies of the full Report, Accounts and Chairman's Statement can be obtained from The Secretary, The Orion Insurance Company Limited, 20/72 King William Street, London EC4N 7BT.

Orion is a member of the Nationale-Nederlanden International Insurance Group

ISSUE NEWS AND COMMENT

Robinson Bros. pref placing

IN AN UNUSUAL move, a private company, Robinson Brothers (Ryders Green), is coming to the market by way of a placing of preference shares which will raise about £2m for existing shareholders.

The company, chemical manufacturers of West Bromwich in the Midlands, is making a scrip issue of two preference shares for every one ordinary share. Arrangements have been made for 1.8m of the resulting 2m preference shares of £1 each to be placed at 109p per share.

The stock carries a coupon rate of 11 per cent and yields 15.3 per cent compared with around 13 per cent shown for commercial and industrial stocks in the FT Actuaries Indices.

The placing will in no way affect the ultimate ownership of the company, which is controlled by Robinson family interests. Dealings are expected to start on June 19.

Robinsons, originally engaged in tar distillation, now manufactures specialised chemicals for the rubber, cosmetic, pharmaceutical, gas, plastic and general chemical industries. It has a labour force of 562.

In 1977, pre-tax profits rose from £1,358m to £1,456m on sales of £24.6m (£27m). For the current year the directors forecast profits of not less than £1.4m.

At end December, 1977 the preference shares were covered 2.3 times by net tangible assets. On the basis of the 1978 forecast and a tax rate of 15 per cent, preference dividends would be covered 3.4 times the prospectus.

Mr. W. A. Robinson, Mr. A. F.

Robinson, Mr. J. H. Robinson and Mr. P. D. Robinson together hold 0.62m beneficial and non-beneficial ordinary shares, out of a total of 1m.

Yearlings fall to 93%

The coupon rate on this week's batch of local authority yearling bonds has dropped from 10 1/2 per cent to 9 3/4 per cent. Issued at par, they are due on June 20, 1979.

The issues are: Royal Borough of Kensington and Chelsea (£0.5m), Eastcote District Council (£0.25m), City of Norwich (£0.75m), Wiltshire County Council (£1m), Cynogor Dosharth Dwyfor (£0.5m), Wiltshire Metropolitan Borough Council (£0.75m), North Kesteven District Council (£0.75m), City of Coventry (£0.5m), Rhondda Borough Council (£0.5m), London Borough of Tower Hamlets (£1m), Barnsley Metropolitan Borough Council (£0.5m), Borough of Cynon Valley (£0.5m), Greater Manchester Passenger Transport Executive (£0.5m), Highland Regional Council (£1m), City of Dundee District Council (£0.5m), City of Glasgow District Council (£1m), City of Liverpool (£1.75m), Metropolitan Borough of Solihull (£0.5m), Strathclyde Regional Council (£1m), South and Central District Council (£1m), City of Exeter (£0.5m).

Bank and Building Society issues of 12 per cent bonds due on June 9, 1982, while Midway Borough Council and Luton Borough Council are each raising £5m by the issue of variable rate bonds due on June 8, 1983.

West Kent Water placing

West Kent Water Company is placing £0.75m of 12.5 per cent Redeemable Debenture Stock, repayable on December 31, 1986. The issue is made up of £0.375m, payable as to £0.25 per cent on June 19 and the balance on September 1.

Dealings are expected to start on June 19.

The stock is payable half-yearly on January 2 and July 1. The first payment on January 2—will be £4,545.

Brokers to the issue are Laurie, Millbank and Co.

comment

It has been three months since the last water company debenture issue. That was York Water with a similar dated stock which is showing in the market yields of 11.75 per cent running and 11.96 per cent to redemption. So the West Kent issue, yielding 12.55 per cent and 12.745 per cent, seems generously priced. However, a better guide is perhaps the cost of the relevant house-to-house refuse collection. The shares were offered at 92p each and opened yesterday at a 91p premium and closed at an 11 1/2p premium.

EXCHEQUER 10%

The prospectus is published today in connection with the new short term stock. The issue is of £900m of 10 per cent Exchequer Stock 1983 at 95p per cent. Last Friday a £1bn long tap was announced.

This issue is payable as to £15 per cent on application with calls of £30 per cent and £50 per cent on July 4 and July 28 respectively. Applications for up to 22,000 of stock must be in multiples of £100; between £2,000 and £50,000 in multiples of £500 and above £50,000 in multiples of £1,000.

I. & J. HYMAN

Dealings in the new shares of I. & J. Hyman offered by way of rights last month started yesterday. The shares were offered at 72p each and opened yesterday at a 91p premium and closed at an 11 1/2p premium.

£1.4m order for Ford

FORD of Britain has concluded a £1.4m truck sales deal, under which 140 10-ton chassis-cabs will be supplied to Turkey. The deal was negotiated by the Swiss body-building company Moser of Burgdorf, which will be fitting refuse collection tipper bodies to the chassis units prior to their re-export to Turkey.

The final buyer in this international deal is the Municipality of Istanbul which will purchase the vehicles for house-to-house refuse collection. The trucks will be delivered to Istanbul in an overland convoy.

All 140 trucks are powered by 170 bhp Ford V8 diesels and are fitted with heavy-duty power take-off equipment supplied by the Bradford company Drum Engineering.

China chemicals project

BY SUE CAMERON

A QUOTATION for the building of a 300,000 tonnes a year ethanone plant, including a £1.5m petrochemical complex in north east China has been made by Japan Gasoline, using exclusively the down-stream technology of Royal Dutch Shell.

A team from Shell spent two weeks in China last month discussing the proposed plant with representatives of Taching Oil Fields and the Chinese National Technical Import Corp. Shell says that if Japan Gasoline's bid is accepted, it would license its technological expertise to the Chinese. It would not take any part in the management of the ethanol plant which, according to Chinese spokesmen, would produce solely for the home market.

It is understood that a quotation for the construction of the plant has been made by Ude, the West German contractor, working with Veba Chemie, as well as by Japan Gasoline. The Chinese, who are said to have contacted a number of contractors, are expected to make a final decision on the bids later this month.

English win business game

FOR THE first time in the eight-year history of The Scotsman management game an English team, the Commercial Union Assurance Company, London have won.

In a final at the Strathclyde Business School Commercial Union emerged at the top from a record number of 282 teams who competed in this year's game.

Commercial Union managed to amass a profit of £481,124. However, there was only £1,763 between first and second place which was taken by the Scottish Gas Board, team-winners of the 1976 game.

Safety coat for motorcyclists

AN INSURANCE company is to provide its motorcycle policyholders with fluorescent waistcoats free of charge because lack of conspicuous clothing is a main cause of accidents involving motorcyclists.

The jackets will be sent out over the next year with renewals and new applications by Devitt (DA Insurance) in conjunction with H.P. Motor Policies at Lloyd's. Shaw Taylor, the TV personality, will give them to the first applicants at Lloyd's today.

More than 70,000 motorcycle accidents occur each year. Devitt hopes that its initiative will reduce the casualty rate by encouraging many more riders to wear luminous clothing.

BRADWALL (F.M.S.) RUBBER ESTATE LIMITED

Record Profit

The sixty-eighth Annual General Meeting of the Company was held in London on 13th June 1978. The Chairman T. B. Barlow said—

The record profit for 1977 was £824,000, which was 22% more than last year.

The dividend of 1.70p (1.25p) per 10p share cost £233,000 (£171,000).

Outlook

Both politically and economically Malaysia is well placed and as the leading exporter of rubber and palm oil the country's future is assured. In the absence of the unforeseen, the outlook is good.

The report and accounts were unanimously adopted.

Fine Art Developments

-mail order and greeting cards-

CONTINUING SUCCESS

"...budgeting for increased sales and profits... optimistic of record results again next year"

	1978	% increase
SALES	£41.9 million	25
PROFIT before tax	£4.7 million	30
EXPORTS	£2.0 million	67
DIVIDENDS per share	1.835p	53
EARNINGS per share	4.863p	
EARNINGS per share (without provision for deferred tax)	9.043p	30

Year ended 31st March

Fine Art Developments Limited

The 1978 Report and Accounts are available from the Secretary at Fine Art House, Queen Street, Burton upon Trent, Staffordshire, DE14 3LP

COMPANY NOTICES

Jacques borel international

NOTICE OF GENERAL MEETING

The shareholders are invited to the Annual General Meeting which will be held on Wednesday, 28th June, 1978 at 11 o'clock at the Hotel Sofitel Paris, 8 to 12 rue Louis Armand, Paris 15e.

The agenda of the Meeting will be as follows:

1. General report of the Commissaires aux Comptes concerning the agreements dealt with under Article 101 of the law of 24th July, 1966.
2. Reports of the Board of Directors and the Commissaires aux Comptes on the financial year 1977.
3. Approval of the 1977 accounts.
4. Appropriation of the 1977 results.
5. Renewal of the appointment of the Board of Directors.
6. Renewal of the appointment of the Censors.
7. Any other matters.

Shares must be inscribed on the register of the Company at least five days before the Meeting. The owners of bearer shares must, within the same date limit, have deposited the shares or the certificate of deposit at one of the following banks:

- Banque de l'Union Européenne
- Banque Louis Dreyfus
- Banque de Paris et des Pays-Bas
- Banque de Paris, 75002 Paris
- Crédit du Nord
- 6/8 Boulevard Haussmann, 75009 Paris
- Banque Générale du Phenix
- 33 bis, Rue La Fayette, 75009 Paris
- Société Séquanaise de Banque
- 370 Rue Saint Honoré, 75001 Paris
- Banque Nationale de Paris
- 16 Boulevard des Capucines, 75009 Paris
- Banque de l'Indochine et de Suez
- 96 Boulevard Haussmann, 75008 Paris
- Banque de l'Union Européenne
- 6 Rue Rabelais, 75008 Paris
- Société Générale
- 50 Boulevard Haussmann, 75008 Paris
- Crédit Lyonnais de dépôts et de crédit industriel
- 8 Rue de la République, 69001 Lyon
- Société Française de Banque
- 119 Boulevard Haussmann, 75008 Paris
- Crédit Commercial de France
- 103 Avenue des Champs Elysées, 75008 Paris
- Banque Neufville, Schlumberger, Mallet
- 3 Avenue Hoche, 75008 Paris

as well as in their offices and agencies in France.

The Board of Directors

GOLD FIELDS GROUP

DECLARATION OF DIVIDENDS

The following dividends have been declared in South African currency payable to members registered in the books of the companies concerned at the close of business on 30 June 1978.

Name of Company	Dividend No.	Amount per share
Intorm Dividend	10	40
Final Dividend	43	30
Intorm Dividend	17	25
Final Dividend	56	25
Intorm Dividend	71	25
Final Dividend	71	25

Dividend warrants will be posted on or about 7 August 1978. Standard conditions relating to the payment of dividends are obtainable at the share transfer offices and the London office of the companies.

Members of the companies who are entitled to the dividends in South African currency by members of the United Kingdom registers must be received by the companies concerned on or before 30 June 1978 in accordance with the above-mentioned conditions.

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A special resolution passed at the annual general meeting of members on 20 April 1978, the shareholders and issued capital of the company was reduced from 61 per share to 90 cents per share and the directors were authorised to make a repayment of capital of 10 cents per share to members registered in the books of the company at the close of business on 30 June 1978. The reduction of capital in respect of members of the Supreme Court of South Africa—Members will be informed the circular in due course when the Court has confirmed the reduction of capital, and of the date and conditions of the request of capital.

The registers of members of all the above companies will be open from 1 to 7 July 1978, inclusive.

London Office: 49 Moorgate, London EC2R 8BQ. United Kingdom Registrar of Companies: 205 High Road, London, E11 1TA. 13 June 1978.

By order of the board, C. E. WENNER, London Secretary.

REGIE NATIONALE DES USINES RENAULT

LOAN OF \$250,000,000.00—

We inform the bondholders that the 3rd coupon payment instalment of \$250,000,000.00 has been made by purchase on the market. Amount outstanding: \$450,000,000.00.

The Principal Paying Agent, SOCIETE GENERALE ASSURANCE DE BANQUE, 15, Av. E. Reuter, Luxembourg.

PERSONAL

SUPER GLASS AND CRYSTAL for the display at the General Trading Co. a hand-picked selection of all that is best in modern design as well as finest traditional styles. Write for our general catalogue to J.G.G. The General Trading Company, 144, Square Street, South Square, London, E.C.4N 3AL.

OWN AN ORIGINAL—Art enthusiasts must sell the entire collection of French Impressionists at a fraction of their real value. Oil paintings by one of the world's top artists—signed. Tel: 01-485 4628.

PUBLIC NOTICES

METROPOLITAN BOROUGH OF WIRRAL

£2m. Bills offered 14th June 1978 due 13th September 1978.

Total applications £14.5m. Outstanding Bills £2m.

CLUBS

EVE, 109, Robert St. 734 0557. A 14 Carats & Silver Jewellery. Three Spectacular Floor Shows 10.35, 12.45 and 7.45 and quick of John Hawkesworth & Friends.

GARGOYLE, 69 Dean Street, London W.1. NEW STRIPTEASE FLOORSHOW. THE GREAT BRITISH STRIP. Show at midnight 8.15 p.m. Men-Fri: Closed Saturdays. 437 6455

ART GALLERIES

AGNEW GALLERY—43, Old Bond St. PAINTINGS. Until 24 July. Mon-Fri. 5.30-5.30. Thurs. until 7.

GROSVENOR HOUSE ANTIQUES FAIR. Park Lane, W.1. Today 5.00 p.m.-10.00 p.m. Daily until 24 June 1.00 p.m.-5.30 p.m. Closed Sunday. Admission £1.50 including illustrated handbook.

INTERNATIONAL FINANCIAL AND COMPANY NEWS

NORTH AMERICAN NEWS

Basic Resources expects break-through next year

BY OUR FINANCIAL STAFF

AN INCREASED loss of \$3.4m was reported for last year by Basic Resources International S.A., the parent company whose subsidiaries operate in oil and metal exploration in Guatemala. The company, which is owned by the president, Mr. John D. Park, anticipates a "sizeable cash flow" in the second quarter of 1979.

By mid-way through next year, the company's pipeline from its Rubelsanto structure to the east coast will be completed. The pipeline, estimated to cost a total of \$23m, will be financed by a consortium of French banks led by Societe Generale S.A. with exploration joint ventures or to

the loan insured by COFACE, an agency of the French Government. The Rubelsanto venture, a joint operation with Shenandoah metal exploration in Guatemala, aims but, the president, Mr. John D. Park, anticipates a "sizeable cash flow" in the second quarter of 1979.

Mr. Park told shareholders in his annual report, published this week, that the company faced "a good possibility" of further additional structures with similar reserves to Rubelsanto. On this basis, the Board has decided to pursue an active exploration programme.

Eaton buys into Cutler-Hammer

BY JOHN WYLES

EATON CORPORATION has stepped into the intricate battle for control of Cutler-Hammer with a \$115.8m purchase of the Milwaukee-based electronics company's common stock.

This holding, which amounts to a 32 per cent stake, has been bought from Tyco Laboratories, a small New Hampshire manufacturing company—which has been a tenacious buyer of Cutler-Hammer stock since last November.

Financed by large bank borrowings and more recently by a \$25m Eurodollar issue, Tyco appeared bent on a takeover of Cutler-Hammer after the larger company stepped in to thwart Tyco's move to control Leeds and Northrup, a precision instrument maker. Cutler-Hammer stepped in as Leeds and Northrup's

"white knight" and eventually acquired 33.5 per cent of the company after Tyco capitulated by selling its holdings.

As many analysts suspected, control of Leeds and Northrup still appears to be Tyco's objective. Eaton has agreed that if it acquires a majority of the 88 per cent of the Cutler-Hammer stock it does not own then "it will, so far as it is legally able and subject to agreement between Cutler-Hammer and Leeds and Northrup, cause Cutler-Hammer to sell all of its holdings of common stock of Leeds and Northrup to Tyco."

Tyco has spent more than \$80m building up its holdings in Cutler-Hammer and it said today that its profits on the deal with Eaton amounted to \$5m "after provisions for recoverable profits and taxes." Eaton paid \$55 a

Las Vegas casino owner in Atlantic City deal

BY OUR OWN CORRESPONDENT

ONE OF the largest U.S. gambling concerns, Caesar's World, which operates the Caesar's Palace Casino in Las Vegas, has enlarged its stake in Atlantic City. New Jersey, the resort which recently became the only town outside Nevada to have legal gambling.

Caesar's World has taken a long term lease with a purchase option on the Howard Johnson Regency Hotel in Atlantic City, with an initial annual payment of \$2.5m. The company will spend about \$30m refurbishing the property and transforming it into a \$2,000 sq ft casino.

Caesar's already has an option to develop a hotel casino on the former Traymore Hotel site, long term lease with a purchase option on the Howard Johnson Regency Hotel in Atlantic City, with an initial annual payment of \$2.5m. The company will spend about \$30m refurbishing the property and transforming it into a \$2,000 sq ft casino.

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Bache buys own shares

NEW YORK, June 13.

BACHE GROUP would not comment on published reports that the company is a potential takeover candidate.

Bache, the parent of Bache Halsey Stuart Shields, said earlier it purchased 489,300 of its common shares in a private transaction at \$10.25 each.

A Bache spokesman said later the shares were bought from a group of shareholders in Chicago that had "a substantial policy difference with the company."

By Francis Ghiles
A \$30m floating rate note for Ljubljanska Bank was announced yesterday. Lead manager is Societe Generale. Terms include a seven-year maturity and a coupon set 1 per cent over Libor with a minimum rate of 7 1/2 per cent.

Over the past 48 hours the secondary market has been very quiet with no changes in prices. Investors are still cautious, preferring to keep their money in term deposits so long as they fear interest rates might move up further.

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HUSKY OIL

Occidental in counter-bid

BY ROBERT GIBBENS

THE American-based multinational oil company, Occidental Petroleum, headed by the legendary Dr. Armand Hammer, is making a counter-bid against Petro-Canada for control of Husky Oil of Calgary—itsself controlled by U.S. citizens.

Occidental's terms value the offer at U.S.\$484m.

Petro-Canada is the two-year-old Canadian national oil company.

Last night, Occidental disclosed plans to make a share exchange offer for 80 per cent or more of the Husky Oil stock outstanding. Husky stockholders would get new Occidental Preferred shares, cumulative U.S.\$100 par and carrying a dividend of U.S.\$10 or U.S.\$7.50.

About 90 per cent of the new stock would carry the higher dividend, and 10 per cent the lower rate; but the latter would be convertible into Occidental common stock at a premium of about 16 per cent. At present market values, each Husky stockholder would get 0.402 of a non-convertible, Preferred share of Occidental plus 0.045 of convertible Preferred and U.S. Government approvals.

Husky shares were trading at C\$35 1/2 when trading was started on the Canadian exchanges last Thursday.

The management of Husky owns about 20 per cent of the company's 11m Husky common shares.

They say they will accept the Occidental offer themselves, and recommend it to other shareholders.

Early on Monday, after several days of rumours, Petro-Canada said it would make an offer for all Husky shares, but without stating a price. Talks were held on Saturday between Husky and Petro-Canada in Calgary.

However, Husky later revealed that the Petro-Canada offer was C\$45 a share and the Husky directors were given 48 hours to accept.

Husky directors say they prefer the Occidental offer "because shareholders would participate in the equity of the combined companies and in potential appreciation from joint developments."

The yield available would be better under the Occidental offer for technical reasons. More than 68 per cent of Husky stockholders are U.S. residents. The Occidental share of 0.045 of convertible Preferred and U.S. Government approvals.

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It requires 90 per cent acceptance. The share exchange would be free of U.S. income taxes for U.S. holders and would represent a proposal by Occidental to take over Husky.

Both companies had been exploring ways of combining their resources "for some time," Canadian Occidental was refused permission to take over Husky. Both companies claim Oil, owned by the major Occidental shareholders, are ready to go ahead with gas distributor Consumers Gas.

Occidental also says it would merge its existing Canadian subsidiary into Husky if the offer goes through, allowing further Canadian participation.

In Calgary, Petro-Canada would say only that it will "review its position."

Earlier in Ottawa, Energy Minister, Mr. Alastair Gillespie, said it was "in the national interest and within the competence of the government" for Petro-Canada to take over Husky Oil.

But a spokesman for Mr. Gillespie said he wondered if Occidental Petroleum had considered the Federal Government's Foreign Investment Review Board in bidding against Petro-Canada for Husky.

The FIRA Act requires a counter-bid price of \$23.

NEW YORK, June 13.

AMERICAN HOIST and Derrick reports a net income for the 26 weeks ended May 27, from \$3.5m to \$5.6m, or from \$1.35 per share to \$2.02m.

The company said that earnings in the past 10 weeks were adversely affected by production development expenses that were higher than normal, and by unfavourable operating results from the Brazilian subsidiary.

Meanwhile, the textiles unit included eight of the 12-corn Collins and Alkman reports an increase in per share earnings from \$1.51 to \$5.55 cents for the survey, which will take at least five months to complete.

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Currency gain lifts Seagram

By Our Own Correspondent

MONTREAL, June 13.

SEAGRAM COMPANY, the world's largest distiller and based in Montreal, earned US \$22.3m or 64 cents a share in the fiscal third quarter, against US \$18.5m or 53 cents a share a year earlier, after pre-tax foreign exchange gains of \$2.6m against \$1.2m. Sales were \$53.3m against \$53.6m.

Nine months earnings were \$62.3m or \$1.78 a share, against \$65.7m or \$1.87 per share, on sales of \$1.7bn, against \$1.6bn. An exchange loss of \$1.2m against a gain of \$7.7m is included.

Kennecott delay
Kennecott announced that its annual meeting, which was adjourned to June 14 to allow for a vote count in the Curcio-Wright proxy fight, had been further postponed to June 25 because the vote tally had not yet been completed. David Lascelles reports from New York.

Offer for Interpool
Interpool's Board today unanimously approved and recommended acceptance of Thyssen-Bornemisze's tender offer, reports AP-DJ from New York. The company said Thyssen's present plans are to make a tender offer for all Interpool common shares at \$40 cash per share. Under the terms of an agreement reached last March, Thyssen is obliged to make a tender offer no later than August 1, 1978, if the acquisition is not consummated in some other way prior to that date.

Chicago Bridge offer
Chicago Bridge and Iron Co. is to make a cash tender offer through its subsidiary CBI Industries for all outstanding common stock of Rowan Companies, at \$26 per share. CBI Industries currently holds 4.9 per cent of the 10.1m outstanding shares of Rowan. CBI Industries said that the proposed offer would be conditional upon favourable action by the Civil Aeronautics Board with respect to transfer of control of Rowan's air taxi operations. AP-DJ reports from Chicago.

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INTERNATIONAL FINANCIAL AND COMPANY NEWS

SOUTH AFRICAN INVESTMENT

More freedom for the institutions

BY RICHARD ROLFE IN JOHANNESBURG

THE SOUTH AFRICAN Minister of Finance, Mr. Owen Horwood, has supplied additional stimulus to the convalescent economy with a surprise move to increase the amount of discretionary funds in the hands of the financial institutions. The "prescribed asset requirements" which the financial institutions have to hold in Government and public corporation fixed interest stocks have been reduced by 2 per cent to 50 per cent and estimates suggest that about R350m (US\$400m) of funds at present invested in public debt can now be made available to the private sector.

This concession partly rolls back the demands made on the financial institutions—primarily the long-term insurers and pension funds, but also the building societies, short-term insurers and the banks—in the Budgets of 1976 and 1977, when in an effort to meet financing needs without resorting to higher taxation, the Minister raised the prescribed asset requirement. It went up by 2 per cent in 1976 and 3 per cent in 1977, but was not touched in the 1978 Budget.

The effect of the 1976 and 1977 increases was felt most markedly in the industrial share market where investment by the long-term insurers and pension funds became little more than a residual item. In 1978, only 10 per cent of these institutions' cash flow was invested in equities and the level was down to 8 per cent in 1977 as the institutions bought gilts to top up their holdings to the prescribed level.

Before the reduced requirement announced late last week, the general expectation among fund managers was that institutional investment in equities

during 1978 would be restored to a more normal 15 per cent. Of cash flow, suggesting that about R300m would find its way into the stock market, or double the 1977 level. But while the industrial market has had a good run over the past year, improving from 176 to 226 on the key Rand Daily Mail 100 Index, institutions have not bid aggressively for stock.

In the gilt-edged markets, however, conditions have been much more hectic and the first fixed interest bull market in years has driven long-term rates down sharply. The July issue of

sources believe another blue chip name could now raise long-term funds at under 12 per cent. This compares with the prime rate for bank borrowings of 12.5 per cent and suggests that the pressure is building up to lower the whole interest rate structure, although the recent rising trend of interest rates in the UK and U.S. will be an important constraint.

Even so, most fund managers believe the decline in domestic interest rates has not yet run its course and from this it follows that they will be reluctant sellers of their gilt and semi-gilt portfolios. The timing of the reduced prescribed assets requirement coincides with a period when the financial institutions are voluntary buyers of Government stock and are effectively forcing interest rates down because of the stock shortage.

The fall in yields has been mirrored in the equity market where the average dividend yield has fallen from 11.9 per cent a year ago to 8.8 per cent this week with a number of leading industrial stocks standing at 50 per cent or more above their 1977 share prices.

With turnover in equities running at about R15-20m a week, it can be argued that some R300m of additional funds likely to be absorbed only against the background of rising share prices—so that the additional R350m now available for private sector investment will not be switched rapidly out of gilts.

The cut in the prescribed asset requirements of the South African financial institutions announced last week has freed an estimated R350m for switching from the public sector to private at a time when the markets in both fixed interest stocks and industrial shares are strong. With turnover in equities running at about R15-20m a week, it can be argued that some R300m of additional funds likely to be absorbed only against the background of rising share prices—so that the additional R350m now available for private sector investment will not be switched rapidly out of gilts.

Long-term Government (RSA) stock will be at 10.5 per cent compared with the peak last year of 11 per cent while the decline in the widely-traded Electricity Supply Commission (Eskom) issues and municipal loan stocks has been even more pronounced, the latter falling from 13 per cent to just over 11 per cent.

Only a few weeks ago, the construction group Murray and Roberts raised 14-year money at 12.6 per cent and capital markets

folios. The timing of the reduced prescribed assets requirement coincides with a period when the financial institutions are voluntary buyers of Government stock and are effectively forcing interest rates down because of the stock shortage.

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Volkskas boosts earnings and payout

By Richard Rolfe

JOHANNESBURG, June 13

FURTHER strength in banking profits in South Africa in the year to March is shown in the results from Volkskas, the third biggest South African bank, which has announced a rise in taxed profit from R15.2m to R16.8m (\$19.4m) after undisclosed transfers to reserve. Earnings per share rose from 70 cents to 78 cents and with a 1 cent rise in the final dividend to 12.5 cents, the dividend total for the year is up from 20 cents to 22 cents.

Last week Stanbic, the local arm of Standard Chartered, reported a return to growth in operating profits—up 42 per cent to R54.5m—and raised its dividend from 22.5 cents to 28 cents. Volkskas, which is centred in the Transvaal and has strong links with government, the municipalities and the public corporations, is the main Afrikaans speaking institution within the Rembrandt Group since last year being the biggest shareholder, though lacking Board representation.

Volkskas has acquired various industrial subsidiaries over the years, the recent performance of which has tended to offset strong profits growth by the banking interests. These industrial interests consist chiefly of Transvaalse Suiker Korporasie, a sugar producer, and TMF, an ingot and die-casting business. To these has recently been added control of the troubled industrial holding company Bonuskor, in which Volkskas has 62 per cent and the operating arms of which include forestry, tea estates, and distribution of earthmoving equipment and motor cycles.

Despite Bonuskor's subsidiary status, its results which showed a loss of R2.2m, have not been consolidated with the latest Volkskas accounts. The Volkskas Board, to cover the increasing diversity of its interests, has decided to establish a new "controlling company" in which similar interests on the industrial side will be grouped together and which will also hold the banking subsidiaries. Total group assets, it is disclosed, rose from R2.6bn to R2.9bn last year.

Tooth raises its dividend

By James Firth

SYDNEY, June 13

TOOTH, the major New South Wales brewer, has raised its dividend after a 12 per cent increase in earnings for the year to April 1. Profit rose from A\$12.6m to A\$14.1m (US\$16m). The dividend is increased from 11.5 cents a share to 12 cents.

The higher profit was largely the result of an improved performance by its wine subsidiary, Penfolds, and the directors expect better results from this operation. Beer profits lagged but the Board is hopeful that the recently announced acquisition of Courage Breweries will enable the group to lift production to meet existing demand, and thus increase profits.

The profit increase lagged well behind the growth in sales, which rose 41 per cent to A\$228m (US\$258m).

Stalemate in Conoco talks with Petronas of Malaysia

BY WONG SULONG

KUALA LUMPUR, June 13

THE ANNOUNCEMENT last week by Continental Oil Company (Conoco) that it is closing its office in Kuala Lumpur, confirms recent speculation that its negotiations on a production sharing agreement with the Malaysian oil company, Petronas, has reached deadlock.

After more than two years of tense negotiations, both sides show no sign of giving way. Conoco says that it is closing its office because the state of talks does not warrant the maintenance of such an office, but hastens to add it has not given up hope altogether of reaching an acceptable agreement with Petronas.

The dispute is centred on whether the Conoco field in the South China Sea is a profitable one.

Conoco, and its two junior partners, El Paso of Texas and Australia's Broken Hill Proprietary (each with a 25 per cent interest in Conoco's Malaysian operations), were given a 24,000 sq. mile concession off the Pahang coast, 10 years ago.

In 1972 the consortium struck oil, and gas in an area known as Sotong, 120 miles from the coast. The strike appeared to be a very promising one with the rate of flow at 5,000 barrels a day. But after more thorough surveys, it was found that the field was rather small.

With the formation of Petronas in 1974, the concession system was abolished, and foreign oil companies were

required to enter into production sharing agreements with the Malaysian oil company.

After protracted negotiations, and much acrimonious argument, two foreign companies—Shell and Exxon—managed to sign a 20-year agreement with Petronas at the end of 1976, which gave them about 41 per cent of the oil produced.

The two companies are now in full swing with their exploration and production work; and, in March, Shell and its partner Mitsubishi concluded another agreement with Petronas to build a U.S.\$1bn liquid natural gas plant in Sarawak.

But the situation is different with the Conoco field. It claims to be a marginal field, it wants a more attractive deal than was given to the two other companies. This has been flatly rejected by Petronas.

There are three main reasons for Petronas' tough stand. First, it does not believe that the Conoco field is marginal. There are claims that the Sotong area has about 20m barrels of recoverable oil. Petronas thinks that it has more than 50m barrels, as well as large deposits of gas.

It has told the consortium that if it is worried about losses, it should be prepared to participate in the venture so that if Sotong proves to be loss-making, Petronas would suffer as well.

However, negotiations on a proposal failed, apparently Sotong field fails to convince Petronas, among other reasons of the need for an early settlement of the dispute.

Tan Chong Motors optimistic

BY OUR OWN CORRESPONDENT

KUALA LUMPUR, June 13

TAN CHONG MOTORS, the Malaysian and Singapore assembler and distributor of Datsun cars, expresses optimism in its annual report that the strong profits of last year would be maintained in the current year as a result of the continued buoyancy of the Malaysian market.

Datuk Tan Yuet Foh, the chairman, says that the company's assembly plant outside Kuala Lumpur, is now working at full capacity and plans are under way to expand facilities to meet the increasing demand for Datsun cars.

Last year's pre-tax profits rose by 170 per cent to 20.2m ringgits

(U.S.\$3.4m), with sales rising 61 per cent to 211m ringgits (U.S.\$58m). Car sales rose by 43 per cent to 9,600 units in 1977, while in Singapore there was a rise of over 200 per cent to 4,000 units.

The Singapore sales are expected to slow down, following the introduction of new car taxes, but the Malaysian side is seen as bright, with no Government action to dampen sales, although the rise in the yen could have some marginal effects.

Datuk Tan says that efforts are being made to diversify into distribution of machine tools, car spare parts and cosmetics, but of Sime's subsidiary, Conso future profitability is dominated

by Datsun cars. The company is confident of maintaining its higher dividends it is paying this year.

United Malacca Estates Berhad, the plantation group controlled by the family of Tan Tan Sie Sin, has sold 1.28m of its 5.15 shares in Consolidated Plantations for 2.1m ringgits (US\$75,000), Wong Sulong writes from Kuala Lumpur.

The sale will realise a profit of 1.5m ringgits, which will be shown in the results for the current year to April 30. Tan Tan is the chairman of Sime Darby Holdings as well as Sime's subsidiary, Conso dated plantations.

Haw Par sees profits in 1978

SINGAPORE, June 13

HAW PAR Brothers International, which reported a reduced group net loss of S\$3.13m (US\$1.5m) for 1977, expects to be in profit this year.

Although the first months of the year will be poor, as a result of marine division losses, there will be a pick-up later as such losses are reduced and other divisions improve, according to the company's annual report.

Every division of the group, except the marine produced profits last year, totalling S\$13.6m, compared with a loss of S\$9.3m previously, but the recovery in trading, textiles and pharmaceuticals offset the marine division's S\$11.2m loss (against a S\$5.1m loss in 1976).

A swing in extraordinary items from a loss of S\$35.64m in 1976 to a gain of S\$2.19m in 1977 played a major part in the improvement in the net result. The pre-tax loss was S\$2.34m, compared with S\$9.77m.

Haw Par said that steps have been taken to correct the marine division position, but that it will not return to profit in the current market.

The Board's policy is to continue the profitable build-up of main operating divisions, expand into new products and areas and improve the rate of return on assets.

Petra Bank starts operations

BY RAMI G. KHOURI

AMMAN, June 13

THE THIRD new commercial bank licensed by the Central Bank during the past year with a joint shareholding between Jordanian and Gulf interests has opened its doors here.

The Petra Bank, with a subscribed capital of 3m Jordanian Dinars (\$8m) and a paid-up capital of JDn 1.1m opened its main branch in the centre of Amman. It aims to concentrate on short-term trade financing for the time being, according to its general manager, Dr. Ahmad Chalabi.

Dr. Chalabi also said, however, that Petra Bank plans to reach out soon into investment banking, trust management and project financing as well, both in Jordan and throughout the Arab world. Petra Bank is also likely to promote more efficient retail banking throughout the traditional and conservative Jordanian banking system, as it is the first bank to introduce on-line computerised retail banking services in the country.

The bank is using a Burroughs B1800 computer system, which is also being considered by other banks in Jordan, according to officials of the computer company.

The Petra Bank's equity is held 60 per cent by Jordanians and 40 per cent by other Arab interests, notably Kuwaiti, Saudi Arabian and Abu Dhabi.

investors. The Middle East Banking Company—Meeco Bank—of Beirut and Meeco's Swiss subsidiary, Socofi, hold a 20 per cent shareholding.

Petra Bank follows two other commercial banks, the Jordanian Bank and the Jordan Gulf Bank, both of which have a similar shareholding split with 60 per cent equity in Jordanian hands and both of which started operations here during the past six months.

Petra Bank brings to 15 the number of commercial banks now operating in Jordan, including eight branches of Arab and Western banks. The country's first merchant banking institution, the Arab-Jordanian Investment Bank, also started operations in April this year. Its capital of JDn 5m or about \$15m is similarly held as to 60 per cent by Jordanians and 40 per cent by Gulf interests.

Senior officials of the Central Bank of Jordan have told the Financial Times that "Jordan now has enough commercial banks" and the only new commercial banks that will be

opened would be branches of Arab banks established here on a reciprocal basis with Jordanian banks opening new branches in the concerned Arab country.

New branches of non-Arab banks in Jordan are ruled out, though the Central Bank is interested in attracting representative offices of international banks. Five such offices have been licensed recently. Central Bank sources say, though none have indicated any urgency about starting operations.

The emphasis of the central banking authorities here now is on encouraging the opening of branches of existing banks throughout the country, and licensing more merchant banks and investment companies dealing with long-term or medium-term financing and underwriting business.

There have been firm indications that all three of the new commercial banks opened this year with minority Gulf shareholdings will set up their own wholly-owned investment companies, although this has not happened to date.

ASEAN plans reinsurance venture

BY OUR OWN CORRESPONDENT

KUALA LUMPUR, June 13

THE newly-formed Insurance Council of the Association of Southeast Asian Nations (ASEAN) plans to set up an ASEAN reinsurance company to be financed jointly by insurance companies in the ASEAN countries.

The president of the Malaysian Insurance Association, Mr. Taib Razaq, said that such a project would cut down the large amount of reinsurance that ASEAN insurance companies would review the proposal at its next meeting in Kuala Lumpur. In the case of Malaysia, a sum

of 60m ringgits in reinsurance money was placed overseas, principally in London, in 1975. ASEAN plans to set up an ASEAN reinsurance company in 1978 and 75m ringgits last year representing 21.5 per cent of gross premium income.

Mr. Taib, who is a vice-president of the ASEAN Insurance Council, said that a feasibility study on the ASEAN reinsurance company was being made, and member companies would review the proposal at its next meeting in Kuala Lumpur. In the case of Malaysia, a sum

THE DREYFUS INTERCONTINENTAL INVESTMENT FUND N.V.

NOTICE OF ANNUAL GENERAL MEETING

NOTICE IS HEREBY GIVEN that the Annual General Meeting of The Dreyfus Intercontinental Investment Fund N.V. ("The Fund") has been called by the Management and will take place at Handelskade 8, Willemstad, Curaçao, Netherlands Antilles on June 26, 1978 at 11.00 a.m.

AGENDA

1. Consideration of a dividend.
2. Approval of Financial Statements for the fiscal year ended August 31, 1977.
3. Reduction of the Fund's authorised capital from 3,000,000 to 2,000,000 Shares.
4. Related Business.

The foregoing items may be approved by a majority of the shares cast on each item. Copies of the Annual Report of the Fund containing the Financial Statements for the fiscal year ended August 31, 1977 and form of proxy—available in English or German without cost to the Shareholder—may be obtained from the principal office of The Dreyfus Intercontinental Investment Fund N.V., Post Office Box N3712, Nassau, N.P., Bahamas Islands, from the offices of the banks listed below, or from

Dreyfus GmbH
Maximilianstr. 24
8 Munich 22, West Germany
Tel. 089/220702, Telex 5123332

Holders of bearer shares will be admitted to the Meeting on presentation of their Certificates or presentation of a voucher which may be obtained from any of the banks listed below.

Holders of bearer shares may vote by proxy by mailing a form of proxy and a voucher obtained from one of the banks listed below to Messrs. C. D. Lind and C. G. Smeets, The Dreyfus Intercontinental Investment Fund N.V., c/o Curaçao International Trust Company N.V., P.O. Box 812, Willemstad, Curaçao, Netherlands Antilles. The form of proxy and voucher must be received by Messrs. Lind and Smeets by June 23, 1978 to be voted at the meeting.

Bowling Green Company Limited
Managing Director

PAYING AGENTS FOR THE DREYFUS INTERCONTINENTAL INVESTMENT FUND N.V.

Morgan Grenfell & Co. Limited
23 Great Winchester Street,
London EC2P 2AX,
England

Deutsche Bank AG
Grosse Gallusstr. 10-14
6 Frankfurt/Main,
West Germany

Banque Internationale à
Luxembourg
2, Boulevard Royal
Luxembourg-Ville,
Luxembourg

Montreal Trust Company
15, King Street West,
Toronto, Ontario,
Canada

MONTE DEI PASCHI DI SIENA

Bank founded in 1472

financial highlights of our 506th year as of december 31, 1977

	(Billion Lire)	(Billion Pounds)
SAVINGS DEPOSITS AND CURRENT ACCOUNTS	5,772.238	3,479.5
BONDS OUTSTANDING	1,011.965	610.0
RESERVE FUNDS	331.442	199.8
TOTAL AVAILABLE FUNDS	8,614.127	5,192.5
LOANS AND ADVANCES	3,339.532	2,013.0
SECURITY HOLDINGS	2,627.682	1,583.9
NET PROFIT	7.579	4.6

MONTE DEI PASCHI DI SIENA "GROUP"

MONTE DEI PASCHI DI SIENA
BANCA TOSCANA
CREDITO LOMBARDO

Total Deposits	11,995.633	7,230.9
Capital and Reserve funds	473.991	285.7

BOARD OF DIRECTORS: Chairman, Giovanni Coda Nuziante; Deputy Chairman, Sergio Simonielli; Members, Mario Bernini, Alberto Brandani, Giovanni Bucciantini, Marcello De Cecco, Gaetano Della Lucella, Fazio Fabbri.

INTERNAL AUDITORS: Chairman, Renato Lunghetti; Members, Marco Baglioni, Carlo Luigi Turchi; Alternates: Francesco Bisconti, Luigi Colantoni.

CHIEF EXECUTIVE AND CHIEF GENERAL MANAGER: Giovanni Cresti

FINANCE

for industry and commerce

Whether you're seeking finance for expansion, for plant, equipment, property or a private mortgage, the directors of Garfield Marwin personally investigate your proposal.

A letter or phone call will receive immediate attention. For enquiries please ring Worthing (0903) 814008.

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Cliftonville Hall, Hove, East Sussex, BN3 3RZ

Our Eurobanking Services

Off to a good start in 1977

We are the wholly-owned subsidiary of Badische Kommunale Landesbank, one of Southwest Germany's leading banks headquartered in Mannheim. Our Eurobanking activities in Luxembourg started in July 1977, and good results were posted for the partial accounting year.

Highlights 77

(in DM million)

Balance sheet total	513
Due from banks	211
Securities	32
Credit volume	243
Due to banks	485
Capital	16

A business volume of DM 531 million was achieved. The surplus for the partial accounting year was transferred to reserves. As a result of this favorable development, the share capital was increased in January 1978 by DM 16 million to DM 32 million.

We concentrate our activities on short and medium-term Eurocredits and syndicated Euroloans, money market and foreign exchange operations, and security transactions. For more information about our Eurobanking services and a copy of our Annual Report, just contact:

BADISCHE KOMMUNALE LANDESBANK INTERNATIONAL S.A.

25c Bd. Royal - P.O. Box 626 - Luxembourg-Ville
Tel.: 475144, 475315 (dealers); Telex: 1791, 1792 (dealers) - 1793 (credits)

مكتبة
الشرق الأوسط

The Peugeot 604 TI- A Thoroughbred



The Peugeot 604 TI and the racehorse have many things in common. Poise, dignity and immaculate breeding are some of them. Speed, power and style are others.

But, whilst only the privileged few can afford to own a racehorse, the well-priced 604 TI is in a class of many. Unlike the racehorse which is rather delicate creature, the car is tough and reliable as well as elegant. Tough and reliable because it's designed that way. For as befits a thoroughbred, only the best is good enough; highly skilled designers and engineers, first class materials, and the most advanced manufacturing technology all combine to produce this true thoroughbred.

The oversquare 2.7 litre V6 engine is built from lightweight aluminium, and has twin camshafts for maximum flexibility. The benefit of using lightweight materials is reflected in the excellent fuel consumption figures (33 mpg at a constant 56 mph*). Technically it's at the head of the field taking full advantage of the latest developments. The Bosch Jetronic fuel injection system accurately meters the fuel/air mixture to increase power and reduce

petrol consumption. The electronic ignition system ensures super smooth starting, and the 5-speed manual gearbox means even smoother, quieter, more economical driving, especially at high speeds. Or, for those who prefer, there's the option of a 3-speed automatic gearbox.

Comfort is naturally of the highest level and the specification of the 604 TI leaves little to be desired; 4 electrically operated windows, subtly tinted glass all round, electrically operated sunroof, power assisted steering, centralised pneumatic door locking system, rear fog lamps and a super deep lustre metallic paint finish to the body with a final coat of clear protective lacquer. The interior is as luxurious as you'd expect and where the 604 really scores is in its spaciousness. As Car magazine said, "rear leg room is almost to limousine standards."

The 604 SL (carburettor model) has always been competitively priced. The 604 TI, with fuel injection and other refinements, represents, at £7582, a first class investment.

And the 604 thoroughbred won't cost you a fortune to run. It's frugal with petrol as we've

shown, but in addition it requires main servicing only once a year, or 10,000 miles (with intermediate check and oil change every 6 months or 5,000 miles). The 604 TI is also covered by Peugeot's straightforward 12 month, unlimited mileage guarantee, and first-class service is assured by our network of fully trained Dealers across the U.K.

Let us tell you more about our thoroughbred—send now for details on the 604.

Model	Manual 5 speed gearbox			Automatic gearbox		
	Constant 56mph	Constant 75mph	Simulated urban driving	Constant 56mph	Constant 75mph	Simulated urban driving
Fuel Consumption*	33.2 mpg (8.5 l/100 km)	26.1 mpg (10.8 l/100 km)	16.8 mpg (16.8 l/100 km)	27.4 mpg (10.2 l/100 km)	22.4 mpg (12.6 l/100 km)	16.7 mpg (16.7 l/100 km)
Price Inc. VAT & Car Tax						
Delivery & No. Plates Extra						
	Leather seats, air conditioning			Leather seats, air conditioning		
	£7581.60			£8522.28		
				£7903.35		
				£8243.82		
				£8787.87		

*In accordance with official government testing procedures. Prices correct at time of going to press. Clothes by Ted Lapidus. Racing stables C. Dingwall.

Peugeot Automobiles (UK) Ltd,
Peugeot House, 333 Western Avenue,
London W3 0RS. Tel: 01-993 2331



604, the best Peugeot in the world.

All of these securities having been sold, this announcement appears as a matter of record only.



U.S. \$200,000,000 Province of Ontario (Canada)

Thirty Year 9% Debentures Due June 1, 2008

Principal and interest payable in The City of New York in lawful money of the United States of America.

Salomon Brothers

Wood Gundy Incorporated

McLeod Young Weir Incorporated

The First Boston Corporation

Merrill Lynch White Weld Capital Markets Group

A. E. Ames & Co.

Dominion Securities Inc.

Atlantic Capital Corporation

Bache Halsey Stuart Shields

Bell, Gouinlock & Company

Blyth Eastman Dillon & Co.

Burns Fry and Timmins Inc.

Dillon, Read & Co. Inc.

Drexel Burnham Lambert

Goldman, Sachs & Co.

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Lazard Frères & Co.

Lehman Brothers Kuhn Loeb

Loeb Rhoades, Hornblower & Co.

Nesbitt Thomson Securities, Inc.

Paine, Webber, Jackson & Curtis

Richardson Securities, Inc.

Smith Barney, Harris Upham & Co.

Union Bank of Switzerland (Securities)

Warburg Paribas Becker

Dean Witter Reynolds Inc.

Greenshields & Co Inc

Midland Doherty Inc.

Pitfield, Mackay & Co., Inc.

This announcement appears as a matter of record only.

New Issue in Canada

Can. \$75,000,000

Province of Saskatchewan

9 1/2% Debentures (Semi-annual interest)

To be dated June 15, 1978

To mature June 15, 2003

Price: 99.00 and accrued interest to yield approximately 9.60%

Dominion Securities Limited

A. E. Ames & Co. Limited

Wood Gundy Limited

McLeod Young Weir Limited

Bell, Gouinlock & Company, Limited

Burns Fry Limited

Richardson Securities of Canada

Merrill Lynch, Royal Securities Limited

Midland Doherty Limited

Nesbitt Thomson Securities Limited

Houston Willoughby Limited

Greenshields Incorporated

Pitfield Mackay Ross Limited

Walwyn Stodgell Cochran Murray Limited

Equitable Securities Limited

Lévesque, Beaubien Inc.

Penberton Securities Limited

Tassé & Associates, Limited

The Royal Bank of Canada

Canadian Imperial Bank of Commerce

Bank of Montreal

The Bank of Nova Scotia

The Toronto-Dominion Bank

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange

ROBINSON BROTHERS (RYDERS GREEN) LIMITED

Placing of 1,813,188 11 per cent Cumulative Preference Shares of £1 each at 109p per Share

SHARE CAPITAL

Authorised

£

1,000,000

2,000,000

2,000,000

5,000,000

Ordinary Shares of £1 each

11 per cent Cumulative Preference Shares of £1 each

Unclassified Shares of £1 each

Issued and Now Being

Issued Fully Paid

£

1,000,000

2,000,000

3,000,000

Application has been made to the Council of The Stock Exchange for the 2,000,000 11 per cent cumulative preference shares of £1 each in the capital of the company to be admitted to the Official List. In accordance with the requirements of the Council of The Stock Exchange 181,319 preference shares are available in the market on the date of publication of this advertisement.

Particulars are available in the Extel Statistical Service and copies may be obtained during usual business hours on any weekday (Saturdays excepted) up to and including 28th June 1978 from:

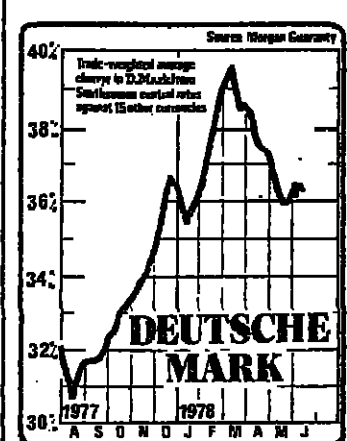
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Currency, Money and Gold Markets

\$ firm in Europe

Conditions in yesterday's foreign exchange remained very subdued throughout the day. The U.S. dollar showed a general improvement against other major currencies apart from the Japanese yen. The dollar may have received a boost from U.S. Federal Reserve Board chairman G. William Miller's statement that the authorities were deeply committed to maintaining a stable and strong dollar. Nevertheless trading was extremely thin and the



currency closed slightly off the top at DM2.0840 from DM2.0795 against the West German mark and FFR 4.581 in terms of the French franc. This was unchanged from the previous close and represented the middle of the day's spread after good commercial demand for the franc.

The Japanese yen showed a much stronger tendency against the dollar mainly on fears of a further large trade surplus for May in Japan and closed at ¥216.75 from ¥217.70. The Swiss franc also eased in dollar terms to Sfrs 1.3850 against the U.S. dollar, using Morgan Guaranty figures at noon in New York, the dollar's trade weighted average depreciation was unchanged at 5.8 per cent. Sterling spent a quiet day and its trade weighted index eased slightly to 61.4 from 61.5 having spent the rest of the day at 61.3. In terms of the dollar, the pound opened at \$1.5375-1.5385 and at one point reached \$1.5410-1.5420

before easing back at the finish to \$1.5335-1.5345, a loss of 40 points on the previous close. Frankfurt: The Bundesbank did not intervene at yesterday's fixing, although the dollar fell to DM 2.0807 from DM 2.0860 at the opening. The opening European rate was around DM 2.0810, although trading was very quiet with the dollar trading in narrow range. No new factors were influencing trading.

Tokyo: In hectic trading, the dollar closed at ¥217.35 against the yen having dipped to a post-war low of ¥216.20 at one point. The previous close was ¥218.97 and although there was a slight recovery in later trading, further pressure seemed likely with the opening of European centres. Intervention by the Bank of Japan was not apparent. Volume rose heavily in spot turnover to 8620m and \$394m in combined forward and swap trading. The authorities announced that trade figures for May due today would now be released on Friday. This gave rise to speculation that the authorities may be waiting a few days in the hope of calmer conditions in the foreign exchange market.

Paris: The dollar fell to Ffr 4.5870 at the close, from a high point of Ffr 4.5900 against the French franc in fairly calm trading. It was also weaker against Monday's closing level of Ffr 4.5930. The French franc was fairly steady against other major currencies, although the Swiss franc rose to Ffr 2.4300 from Ffr 2.4250 in the morning, and Ffr 2.4250 late on Monday. Sterling finished at Ffr 8.4850, compared with Ffr 8.4300 in the morning, and Ffr 8.4400 on Monday afternoon, while the mark rose to Ffr 2.2050, from DM 2.2047 in early trading, and Ffr 2.2030 previously.

Milan: The dollar remained weak, losing ground against the lira at the fixing. Dollars traded amounted to 126m, most sold by the Bank of Italy. The U.S. dollar fell to Lira 1,350.4, compared with Monday's fixing of Lira 1,350.4, but major European currencies tended to improve against the lira. The Swiss franc rose to Lira 1,434.84 from Lira 1,433.51, while the Dutch guilder improved to Lira 1,412.4. Amsterdam: At the fixing the dollar was Fl 2.2305, compared with Fl 2.2345 on Monday.

THE POUND SPOT

June 13	Bank	Day's Spread	Close
U.S. \$	1.5335-1.5345	1.5335-1.5345	1.5335-1.5345
Canadian \$	0.85-0.86	0.85-0.86	0.85-0.86
Deutsche Mark	2.0807-2.0860	2.0807-2.0860	2.0807-2.0860
French Ffr	4.5870-4.5900	4.5870-4.5900	4.5870-4.5900
Italian Lira	1,434.84-1,433.51	1,434.84-1,433.51	1,434.84-1,433.51
Japanese Yen	216.75-217.70	216.75-217.70	216.75-217.70
Swiss Sfr	1.3850-1.3850	1.3850-1.3850	1.3850-1.3850
Spanish Ptas	165.48-165.48	165.48-165.48	165.48-165.48
Portuguese Esc	200.48-200.48	200.48-200.48	200.48-200.48
Belgian Bfr	33.33-33.33	33.33-33.33	33.33-33.33
Dutch Gld	1.412.4-1.412.4	1.412.4-1.412.4	1.412.4-1.412.4
Austrian Sch	13.76-13.76	13.76-13.76	13.76-13.76
Swedish Kr	4.60-4.60	4.60-4.60	4.60-4.60
Norwegian Kr	4.60-4.60	4.60-4.60	4.60-4.60
Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Soviet Rub	13.76-13.76	13.76-13.76	13.76-13.76
East German M	13.76-13.76	13.76-13.76	13.76-13.76
Polish Zloty	13.76-13.76	13.76-13.76	13.76-13.76
Romanian Lei	13.76-13.76	13.76-13.76	13.76-13.76
Bulgarian Lev	13.76-13.76	13.76-13.76	13.76-13.76
Hungarian Forint	13.76-13.76	13.76-13.76	13.76-13.76
Czechoslovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovenian Tolar	13.76-13.76	13.76-13.76	13.76-13.76
Croatian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Serbian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovenian Tolar	13.76-13.76	13.76-13.76	13.76-13.76
Croatian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Serbian Dinar	13.76-13.76	13.76-13.76	13.76-13.76

FORWARD AGAINST £

One month	2 p.a.	Three months	6 p.a.
U.S. \$	1.5335-1.5345	1.5335-1.5345	1.5335-1.5345
Canadian \$	0.85-0.86	0.85-0.86	0.85-0.86
Deutsche Mark	2.0807-2.0860	2.0807-2.0860	2.0807-2.0860
French Ffr	4.5870-4.5900	4.5870-4.5900	4.5870-4.5900
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Spanish Ptas	165.48-165.48	165.48-165.48	165.48-165.48
Portuguese Esc	200.48-200.48	200.48-200.48	200.48-200.48
Belgian Bfr	33.33-33.33	33.33-33.33	33.33-33.33
Dutch Gld	1.412.4-1.412.4	1.412.4-1.412.4	1.412.4-1.412.4
Austrian Sch	13.76-13.76	13.76-13.76	13.76-13.76
Swedish Kr	4.60-4.60	4.60-4.60	4.60-4.60
Norwegian Kr	4.60-4.60	4.60-4.60	4.60-4.60
Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Soviet Rub	13.76-13.76	13.76-13.76	13.76-13.76
East German M	13.76-13.76	13.76-13.76	13.76-13.76
Polish Zloty	13.76-13.76	13.76-13.76	13.76-13.76
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Hungarian Forint	13.76-13.76	13.76-13.76	13.76-13.76
Czechoslovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
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Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovenian Tolar	13.76-13.76	13.76-13.76	13.76-13.76
Croatian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Serbian Dinar	13.76-13.76	13.76-13.76	13.76-13.76

THE DOLLAR SPOT

June 13	Bank	Day's Spread	Close
Canada \$	0.85-0.86	0.85-0.86	0.85-0.86
U.S. \$	1.5335-1.5345	1.5335-1.5345	1.5335-1.5345
Deutsche Mark	2.0807-2.0860	2.0807-2.0860	2.0807-2.0860
French Ffr	4.5870-4.5900	4.5870-4.5900	4.5870-4.5900
Italian Lira	1,434.84-1,433.51	1,434.84-1,433.51	1,434.84-1,433.51
Japanese Yen	216.75-217.70	216.75-217.70	216.75-217.70
Swiss Sfr	1.3850-1.3850	1.3850-1.3850	1.3850-1.3850
Spanish Ptas	165.48-165.48	165.48-165.48	165.48-165.48
Portuguese Esc	200.48-200.48	200.48-200.48	200.48-200.48
Belgian Bfr	33.33-33.33	33.33-33.33	33.33-33.33
Dutch Gld	1.412.4-1.412.4	1.412.4-1.412.4	1.412.4-1.412.4
Austrian Sch	13.76-13.76	13.76-13.76	13.76-13.76
Swedish Kr	4.60-4.60	4.60-4.60	4.60-4.60
Norwegian Kr	4.60-4.60	4.60-4.60	4.60-4.60
Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Soviet Rub	13.76-13.76	13.76-13.76	13.76-13.76
East German M	13.76-13.76	13.76-13.76	13.76-13.76
Polish Zloty	13.76-13.76	13.76-13.76	13.76-13.76
Romanian Lei	13.76-13.76	13.76-13.76	13.76-13.76
Bulgarian Lev	13.76-13.76	13.76-13.76	13.76-13.76
Hungarian Forint	13.76-13.76	13.76-13.76	13.76-13.76
Czechoslovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovenian Tolar	13.76-13.76	13.76-13.76	13.76-13.76
Croatian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Serbian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Yugoslav Ddr	13.76-13.76	13.76-13.76	13.76-13.76
Czech Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovak Kor	13.76-13.76	13.76-13.76	13.76-13.76
Slovenian Tolar	13.76-13.76	13.76-13.76	13.76-13.76
Croatian Dinar	13.76-13.76	13.76-13.76	13.76-13.76
Serbian Dinar	13.76-13.76	13.76-13.76	13.76-13.76

FORWARD AGAINST \$

One month	2 p.a.	Three months	6 p.a.
U.S. \$	1.5335-1.5345	1.5335-1.5345	1.5335-1.5345
Canadian \$	0.85-0.86	0.85-0.86	0.85-0.86
Deutsche Mark	2.0807-2.0860	2.0807-2.0860	2.0807-2.0860
French Ffr	4.5870-4.5900	4.5870-4.5900	4.5870-4.5900
Italian Lira	1,434.84-1,433.51	1,434.84-1,433.51	1,434.84-1,433.51
Japanese Yen	216.75-217.70	216.75-217.70	216.75-217.70
Swiss Sfr	1.3850-1.3850	1.3850-1.3850	1.3850-1.3850
Spanish Ptas	165.48-165.48	165.48-165.48	165.48-165.48

LOCAL AUTHORITY FINANCE

The days of sustained rapid growth in local authority expenditure may well have gone for good. But despite the restrictions of the last few years expenditure may still be running above the level allowed for in the last rate support grant settlement.

Trying to control a supertanker

By Colin Jones

HAS often been said that since the imposition of the 1975-76 cash limits on the government, local government expenditure has been like a supertanker, trying to stop more likely to underspend than overspend. At this stage, the Government is reserving judgment. There is little point, as yet, in making a big fuss. On the other hand, it is not yet persuaded that the following year, helped about some underspending of the £200m more than had been final estimates, local current spending actually fell back by about 1½ per cent. There is some underspending again this year and a drop in interest, by the end of the day, a year-on-year change in this year's rate support grant was an increase of not less than 1½ per cent which meant that local spending levels were actually the same as in 1975-76.

estimates

For the present year, the figures are not yet clear. The turn of local expenditure and half-way point. But extra indices which is compiled jointly by the Department of the Environment and the Chartered Institute of Public Finance and Accountancy revealed that 457 local authorities in England and Wales had collectively increased their expenditure by 1.2 per cent (roughly £200m) over the level allowed for in the November 1977 rate support grant settlement. The local authority associations argue, however, that the final output of the Government's guideline per cent volume increase in 1978-79 experience has shown that current spending, making a

per cent rise overall. If the days of sustained rapid growth in local expenditure may well betokens a reduction in borrowing, all well and good. But if it presages an even sharper revival in capital spending than had been allowed for, then that will be a very different matter. These considerations are

remind us that there is a limit to the level of taxation that people are prepared to stomach. Moreover, in this country at least, the bigger the share of the GNP that local expenditure absorbs, the greater will be the anxiety to control it on the part of those in central government.

1950s and 1960s. 1973-74 could be a mistake to discount the forward predictions of spending levels contained in this year's Public Expenditure White

ment for, clearly, the aspirations of voters, pressure groups, officials, and politicians at all levels are unlikely to abate.

For central government, it will mean examining afresh the means by which it tries to exercise an overriding influence over the totality of local spending. The changes introduced to enhance the influence of the rate support grant mechanism—the introduction of cash limits, the abolition of "trend extrapolation," and the setting up of the Consultative Council in order to try to bring about a consensus—may have worked in the emergency conditions of 1975-78, but will they stand the strain of a lasting haul?

Some observers see this as pointing inexorably to the unitary grant concept. Whitehall is unlikely to want to see local autonomy completely eroded. There is no desire to emulate the Irish, who this year abolished the domestic rate. But the unitary grant could well be the weapon to give the centre an adequate leverage on the totality of local spending while offering a means of providing full compensation for local needs and full equalisation of local resources.

Most councils dislike the unitary grant because it would enable the government to set a national standard rate poundage and thus expose both underspenders and overspenders to public pressure. But what, in effect, this means is that they are reluctant to acknowledge publicly their own particular responsibilities. Moreover, the unitary grant would expose the public view of the political judgment that lies behind the decisions on the total grant and its

At the same time, the prospect of a lower trend rate in local government spending has implications for local authorities. Public pressure for more services and better standards order to try to bring about a consensus—may have worked in the emergency conditions of 1975-78, but will they stand the strain of a lasting haul?

But this may be no bad thing. It could put more impetus into the drive to get better value for money and a better use of the assets and manpower which local councils deploy. It could lead to a reconsideration of charging policies and a redefinition of services which ought to be self-supporting or even privatised. It could lead to a reconsideration of priorities in the light of changing perceptions of social need (a task for the new corporate management approach, if there was ever one), so that resources can be switched from services which are commanding a diminishing priority to newer and more compelling needs.

In an age of expansion, the provision of services to the community might well have been looked upon as an ever growing empire. In an age of continuing restraint, it will more be a question of juggling resources around a moving kaleidoscope of services and making sure that every penny counts.

Pressure

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PHILIPS

Mr. Peter Shore's decision to postpone the adoption of capital values and to retain rental values as the basis of assessing residential properties has come as a big disappointment to those who had hoped for a more radical change. However, the disappointment over Mr. Shore's announcement

of a local property tax, if the values on which the tax is

By 1982 almost ten years will again have elapsed since the last revaluation in England and Wales, a period in which infla-

There would, for example, be some considerable re-distribution of rates burdens against occupiers of residential property at both the top and bottom end of the scale. Properties in the countryside would lose

This in turn could exacerbate another problem — the sharply increased number of appeals which have occurred after recent revaluation, particularly the 1973 revaluation. The Layfield Committee suggested in its report that the period for appealing against assessments should be restricted, as is already the case in Scotland, to the first year of a new list except where some material change has occurred affecting the value of a property. The

This, of course, assumes that it is right to adopt capital values as the basis for assessing rateable values of residential property. Despite the strength of the largely professional lobby in favour of the change, the question seems destined to remain one of considerable political controversy. At heart, it raises the even more fundamental question of whether local government should continue to have its own special tax base.

No other possible alternative local tax would be as simple and as inexpensive in administer and collect. No other would have as predictable and substantial a yield. And the alternative bases for a property tax are either, like rental values, becoming more and more unworkable or, like square metres of surface area, would be more regressive.

Local rates may not be liked. But the adoption of capital values, together with the retention of rate rebates, would probably make the rating system a little more progressive. And the fact that so large a proportion of local government spending is financed by government grant out of the proceeds of general taxation goes a long way to meet the other point of equity which is raised against the rating system—namely, that local residents who do not ratepayers fail to pay their proper share of the cost of local services.

The Government argued that these changes would strike a fair balance between the rights of individuals and the efficient operation of the rating system. It rejected a further Layfield recommendation concerning the proportion of the increase in rates (presently 50 per cent) which may be withheld following a revaluation if a property has not been altered and the appeal is lodged within six months. On the other hand, the volume of appeals which followed the 1973 revaluation placed so great a burden on local valuation officers that, if repeated in 1982, it could again impair the chances of keeping to a system of five yearly revaluations. If capital value rating is to be adopted then certainly the change ought to follow as soon as possible after 1982.

In point of fact, taxpayers nowadays contribute almost twice as much as ratepayers towards the cost of running local government. The more fundamental question, however, is whether local government should have a tax base at all. The next question is, if so, then what should it cover. Only when those two questions have been answered, can one decide the question of what that tax base should be.

Colin Jones

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the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015.

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LOCAL AUTHORITY FINANCE III

New rules for borrowing

THE LAST twelve months has seen a rate cycle. However, what has been the most significant development in the history of local authority finance and Town Hall treasurers will not be short of things to talk about at their annual get-together in Edinburgh this week.

Over the past year the authorities have had to digest the implementation of the voluntary code of practice for long-term borrowing and the introduction of floating-rate stock and bond issues. Interest rates have fallen from around the 15 per cent level at the end of 1976, to under 5 per cent late last year. Now they are back in double figures.

Against this background the authorities could be forgiven for wanting to keep their heads down. However, since they occupy such an important place in the financial system—their debt of around £30bn is not far short of the size of the National Debt—they cannot sit on the sidelines. They are very important forces in the short-term money markets. Outsiders often do not realise that a medium-sized authority such as the City and Coventry turns over well in excess of £1bn of debt annually which represents something like 5m per day.

The sums are large especially in the temporary debt market. And, although they are often not outside transactions, local authorities are not immune from the vagaries of the interest rate market. The Treasury's initial reaction was to impose a strict restraint on longer-term borrowing by further use of the Control of Borrowing Order. The local authorities were not at all happy about the use of this rather blunt instrument from the vagaries of the interest rate market.

Treasury to accept an offer from the Association of Local Authorities to introduce their own code voluntarily.

As the code was not introduced until last August its impact on 1977-78 was not very tough. A further two transitional years are provided with increasing restraint until 1980-1981 when all new local authority longer-term loans must have a minimum seven year average maturity. The main elements of the new code have been summarised by Butler Tili Ltd. in their very useful book *Money Services for Local Authorities*.

They are as follows—(a) longer term borrowing (including P.W.L.B. loans) is to be so organised that the average maturity to maturity shall be four years in the year to March, 1978, five years to March, 1979, six years to March, 1980 and seven years thereafter.

(b) Even though the average maturity of one, two and three years shall each not exceed 15 per cent of total longer-term borrowing (45 per cent in all). These allowances are not "transferable." If less than 15 per cent one year money is borrowed, the shortfall cannot be made up with two or three year money.

(c) Amounts borrowed by negotiable bonds may be excluded from the three 15 per cent calculations, but in that event the relevant percentage for the year is reduced by 21 per cent in the years in which the bonds mature.

Maturity

(d) If in any year a single maturity, or the sum of any two maturities, exceeds 15 per cent of the loans to be raised during the year, the average period for that year may be reduced by

one year, and the percentages increased by 5 per cent.

Although the code is simple in conception, it is more complicated to operate since there are difficulties associated with applying it to instalment and option loans. For example, however, it is already having a major effect on both the short-term money markets and the longer term debt markets.

Authorities have been relying heavily on the temporary debt market. In 1975-76 over a third of the authorities' net borrowing was funded from this source. However, in the first nine months of 1977-78 net temporary borrowing has been reduced by £1.2bn. The lower interest rates obviously explain part of the fall but the new code is the real reason. Even though overall net local authority borrowing rose by only £0.8bn, the authorities boosted their net long-term borrowing by £2.1bn. The code has not really

affected the negotiable bond market. The regular weekly issue of £20m or so "yearling bonds" has not been increased, although the number of bonds with up to five-year maturities has been slowly growing. The authorities have also been increasing the proportion of their money they take from the Public Works and Loan Board.

The real impact has been in the corporation stock market. When interest rates soared above 15 per cent in 1976 the local authorities stayed away from the market but as rates started heading down they moved back in. The ice was broken by the Corporation of London in February of last year. It issued £25m of 1983 stock on a 131 per cent coupon and a fortnight later the GLC announced a £50m issue on the same coupon. For the next six months roughly two authorities a month came to the stock market and virtually all the

issues were healthily over-subscribed. Coupons fell but apart from a small ten-year issue from Burnley the maturities did not extend beyond eight years.

In August new ground was broken when the City of Bristol announced the first-ever floating rate stock issue. In common with the Treasury's earlier issues of variable rate stock, the coupon on the Bristol issue was linked to Treasury bill rate. The mechanism was slightly complicated with each interest payment at a rate equal to half the sum of an indicator rate, a fixed margin of 11. Interest was payable half-yearly.

The issue was not very well received and a fortnight later Morgan Grenfell and brokers, more cheaply than direct from the banks. However, the latter soon realised that the local authorities would make ideal customers for their medium-term loans, especially since they were flush with funds and short of borrowers.

The problem with floating rate stock issues at the moment is that they are only of five-year maturity. Beyond that commission rates are non-negotiable and stocks of over five years must be quoted inclusive of accrued interest. This does not appeal to the banks and the stock exchange will probably have to change its rules if floating rate stock issues of over five years are to become common place. There is understood to be a seven-year issue, scheduled provisionally for July, waiting in the wings but it is as yet unclear how the managers will circumvent the above problems.

By contrast the syndicated bank loan is an attractive way of borrowing for the local authorities. There is no need to queue up for permission at the Bank of England, as there is with conventional stock issues, and the maturities can extend to ten years and the authority has much more flexibility in terms of drawdown periods and early repayments. At the moment, the introduction of the corset is squeezing the banks liquidity and so medium-term bank loans will be harder to come by and more expensive.

The questions are legion. The point is not so much the scope for attracting extra income, though that in itself is pertinent, but the need to look upon local services as a constantly changing kaleidoscope of priorities. The proportion of the national income which is devoted to the provision of local services is never likely to be large enough to accommodate everyone's aspirations. There could well be a case for charging for, or even privatising, services which are commanding a steadily diminishing priority in order to free resources for the newer or more urgent priorities which arise.

C.J. William Hall

Where the money comes from

LOCAL AUTHORITIES have been quick to take advantage of the Government Act which came into operation in April last year permitting them to conduct local lotteries. At the last count some 260 local authorities had begun to raise money in this way, which is just over half the total number in Britain.

Most of them have been glad to offload the administrative chores to the various private sector companies—such as Littlewoods, Vernons, Norton and Wright, Ladbrokes and many others—which are offering to run lotteries for them. With about 40 per cent of the take coming back to the council as the net contribution to its funds, lotteries could well now be contributing in the region of £50m a year to the councils taking part.

This may seem very small beer when measured against the £20,000m-plus a year which local councils receive from all sources—rates, grants, trading income, rents, fees, charges, interest and dividends. But the Act limits the size of local authority lotteries in terms both of turnover and prizes. The point, however, is that this £50m, which could rise towards £80m or more a year when other councils join in, is a useful supplementary source of income. It comes on the margin, and this is what counts.

Holding a lottery is not the only way in which a local authority can increase its income other than from rate-payers, or in the form of government grants, from the taxpayer. In all, local authorities are collecting well over £2,000m a year in rents, fees and charges which is about 13 per cent of their total income.

Almost half this sum comes from rents for housing and land, and rather more than a tenth comes from trading services, such as municipal bus services, ports and airports, markets, slaughter houses, civic halls, theatres and restaurants, and industrial estates. The remainder comes from services provided out of the general rate fund. Examples here are further education colleges, school meals, libraries, museums and art galleries, residential homes, car parks, private street works, sports centres, parks, swimming baths, public laundries, allot-

ments, cemeteries and approaches to charging policy are inhibited by social attitudes about the kind of local services which should be provided free or, at least, substantially below cost. But even where these restraints do not operate, and local councils have discretion, one finds a wide range of approach to charging policy.

It would be nice to think that the whole question of local charging policies is about to be opened up. The Layfield Committee on Local Government Finance made a lot of sensible points, and in particular called for a thorough review on such matters as the distinction between charges that should continue to be fixed or regulated by the government and those which should be left to local discretion; the anomalies both between and within local services and between local services and services provided by other public bodies; the levels of charges, which are set by statute; the services which should normally be expected to cover their costs; and the procedures and criteria which councils should observe in

determining both charging policy and the levels of charges. A review is now being conducted on these lines by the government and the local authority associations. Housing rents, transport fares, school meal charges, and public library charges have been excluded from the review for one reason or another. Even so, the review covers activities yielding about £1bn a year.

New ideas need not necessarily affront social attitudes. For example, how often should charges be adjusted in the light of rising costs? Could not more use be made of expensive local assets, such as by hiring out school and college playing fields, to outside clubs and organisations or by offering further education establishments as conference venues? But sooner or later the question of social attitudes, or what are assumed to be social attitudes, will need to be tackled. The public perception of social needs is constantly changing. Services which were once provided as a basic necessity can

slip down the pecking order of public priorities. Relatively new services, such as car parking and the vast range of leisure and recreational services which are being opened up, may justifiably be provided at or near to cost. Is it right nowadays for public cemeteries and crematoria to be so heavily subsidised?

The questions are legion. The point is not so much the scope for attracting extra income, though that in itself is pertinent, but the need to look upon local services as a constantly changing kaleidoscope of priorities. The proportion of the national income which is devoted to the provision of local services is never likely to be large enough to accommodate everyone's aspirations. There could well be a case for charging for, or even privatising, services which are commanding a steadily diminishing priority in order to free resources for the newer or more urgent priorities which arise.

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Grants

CONTINUED FROM PREVIOUS PAGE

in cost levels, or differences in the standards of service being provided, can be ignored. Moreover, there is now acute shortage of up-to-date data for most categories of need. Because of the mid-term population census which was due to take place in 1976 was cancelled (in one of the Government's spending cuts), figures have to be drawn from the 1971 census. Because most of these are now woefully out-of-date, the data which are used in the multiple regression analysis have become fewer and fewer.

Yet some 1971 figures are still being used. The formula derived from multiple regression analysis for the 1978-79 grant distribution was based upon seven factors, of which two—single parent families with dependent children, and the number of primary and secondary pupils of compulsory school age—received a combined weighting of 63.2 per cent (It should be explained that each of the seven factors was used, not so much for its own sake, but because the analysis had shown that they were surrogates for a variety of factors that determined spending need).

The school population figures (30.3 per cent weight) posed no problem. They were based upon January, 1977, figures. But the figures for one parent families with children (32.9 per cent weight) were drawn from the

1971 census. A third factor, with a weight of 6.3 per cent, was the number of persons living in households lacking the basic amenities. This, too, was based upon the 1971 census, which meant that almost 40 per cent of the formula used to govern the distribution of this year's grant was based upon statistical data which is now seven years old.

It was not surprising that the three main local authority associations each proposed a different grant formula to the grants working party, and that the Department of the Environment should have come up with a fourth. In the end, the formula derived from the multiple regression analysis—which had been used in previous years—was retained and the other three methods were dropped (for the moment, no doubt).

More important still, however, a special survey is now under way with a view to thickening up the volume of up-to-date data available for future grant distributions. The provision of more and better indicators of need will be essential whatever happens to the grant system—whether the present system is broadly retained or whether the proposed system of unitary grants is eventually adopted.

C.J.

Indices

corded on the Toronto SE yeste
day following a heavy trade. Th
Composite index was 0.5 easi
at 1,142.5, while Metals ar
Minerals ranged 108 to 982.

Spain
Market was in easier vein, with the Madrid General Index recording 0.58 to 104.34. FEMSA had heavy selling and retreated points to 132.

After renewed early strength in London buying, share price reacted on profit-taking to finish lower on the day, the Hang Seng Index ending recording a net decline of 5.03 at 513.77. Business was aggressive.

Hong Kong Bank shed 20 cents to HK\$17.00, Hong Kong Land to HK\$8.70 and Swire Pacific "A" 5 cents to HK\$7.10, while Jardine Matheson recorded 15 cents to HK\$14.70 and Wheelock 2.5 cents to HK\$2.725.

Johannesburg

Gold closed with an easy upward movement

Mining Financials were unchanged to higher in very quiet trade. Anglos gained 18 cents to R5.55 and Johnnies 40 cents to R23.25. Elsewhere, De Beers moved ahead 10 cents to R6.1

Milan

operators in slow trading, with auction
 to be held for a Cabinet meeting, due
 later this week to decide on
 further fiscal measures.

Switzerland

Narrowly mixed in moderate
 activity.

Financials were generally fir-
 med slightly higher, with some
 speculation being noted. In
 shares of companies with Latin
 American interests following the
 news of the planned nationaliza-
 tion of Cia Inter-Argentina de
 Electricidad, of Buenos Aires.

Bond and scrip issue, of Per share, 1 Franc
 20 Gros. Div. 1/2. A Assumed dividend, after
 scrip and/or rights issue, A after 100
 shares, B after 200 shares, C after 300
 shares, D after 400 shares, E after 500
 shares, F after 600 shares, G after 700
 shares, H after 800 shares, I after 900
 shares, J after 1,000 shares, K after 1,100
 shares, L after 1,200 shares, M after 1,300
 shares, N after 1,400 shares, O after 1,500
 shares, P after 1,600 shares, Q after 1,700
 shares, R after 1,800 shares, S after 1,900
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 shares, AT after 4,600 shares, AU after 4,700
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 shares, BZ after 7,800 shares, CA after 7,900
 shares, CB after 8,000 shares, CC after 8,100
 shares, CD after 8,200 shares, CE after 8,300
 shares, CF after 8,400 shares, CG after 8,500
 shares, CH after 8,600 shares, CI after 8,700
 shares, CJ after 8,800 shares, CK after 8,900
 shares, CL after 9,000 shares, CM after 9,100
 shares, CN after 9,200 shares, CO after 9,300
 shares, CP after 9,400 shares, CQ after 9,500
 shares, CR after 9,600 shares, CS after 9,700
 shares, CT after 9,800 shares, CU after 9,900
 shares, CV after 10,000 shares, CW after 10,100
 shares, CX after 10,200 shares, CY after 10,300
 shares, CZ after 10,400 shares, DA after 10,500
 shares, DB after 10,600 shares, DC after 10,700
 shares, DD after 10,800 shares, DE after 10,900
 shares, DF after 11,000 shares, DG after 11,100
 shares, DH after 11,200 shares, DI after 11,300
 shares, DJ after 11,400 shares, DK after 11,500
 shares, DL after 11,600 shares, DM after 11,700
 shares, DN after 11,800 shares, DO after 11,900
 shares, DP after 12,000 shares, DQ after 12,100
 shares, DR after 12,200 shares, DS after 12,300
 shares, DT after 12,400 shares, DU after 12,500
 shares, DV after 12,600 shares, DW after 12,700
 shares, DX after 12,800 shares, DY after 12,900
 shares, DZ after 13,000 shares, EA after 13,100
 shares, EB after 13,200 shares, EC after 13,300
 shares, ED after 13,400 shares, EE after 13,500
 shares, EF after 13,600 shares, EG after 13,700
 shares, EH after 13,800 shares, EI after 13,900
 shares, EJ after 14,000 shares, EK after 14,100
 shares, EL after 14,200 shares, EM after 14,300
 shares, EN after 14,400 shares, EO after 14,500
 shares, EP after 14,600 shares, EQ after 14,700
 shares, ER after 14,800 shares, ES after 14,900
 shares, ET after 15,000 shares, EU after 15,100
 shares, EV after 15,200 shares, EW after 15,300
 shares, EX after 15,400 shares, EY after 15,500
 shares, EZ after 15,600 shares, FA after 15,700
 shares, FB after 15,800 shares, FC after 15,900
 shares, FD after 16,000 shares, FE after 16,100
 shares, FF after 16,200 shares, FG after 16,300
 shares, FH after 16,400 shares, FI after 16,500
 shares, FJ after 16,600 shares, FK after 16,700
 shares, FL after 16,800 shares, FM after 16,900
 shares, FN after 17,000 shares, FO after 17,100
 shares, FP after 17,200 shares, FQ after 17,300
 shares, FR after 17,400 shares, FS after 17,500
 shares, FT after 17,600 shares, FU after 17,700
 shares, FV after 17,800 shares, FW after 17,900
 shares, FX after 18,000 shares, FY after 18,100
 shares, FZ after 18,200 shares, GA after 18,300
 shares, GB after 18,400 shares, GC after 18,500
 shares, GD after 18,600 shares, GE after 18,700
 shares, GF after 18,800 shares, GH after 18,900
 shares, GI after 19,000 shares, GJ after 19,100
 shares, GK after 19,200 shares, GL after 19,300
 shares, GM after 19,400 shares, GN after 19,500
 shares, GO after 19,600 shares, GP after 19,700
 shares, GQ after 19,800 shares, GR after 19,900
 shares, GS after 20,000 shares, GT after 20,100
 shares, GU after 20,200 shares, GV after 20,300
 shares, GW after 20,400 shares, GX after 20,500
 shares, GY after 20,600 shares, GZ after 20,700
 shares, HA after 20,800 shares, HB after 20,900
 shares, HC after 21,000 shares, HD after 21,100
 shares, HE after 21,200 shares, HF after 21,300
 shares, HG after 21,400 shares, HI after 21,500
 shares, HJ after 21,600 shares, HK after 21,700
 shares, HL after 21,800 shares, HM after 21,900
 shares, HN after 22,000 shares, HO after 22,100
 shares, HP after 22,200 shares, HQ after 22,300
 shares, HR after 22,400 shares, HS after 22,500
 shares, HT after 22,600 shares, HU after 22,700
 shares, HV after 22,800 shares, HW after 22,900
 shares, HX after 23,000 shares, HY after 23,100
 shares, HZ after 23,200 shares, IA after 23,300
 shares, IB after 23,400 shares, IC after 23,500
 shares, ID after 23,600 shares, IE after 23,700
 shares, IF after 23,800 shares, IG after 23,900
 shares, IH after 24,000 shares, II after 24,100
 shares, IJ after 24,200 shares, IK after 24,300
 shares, IL after 24,400 shares, IM after 24,500
 shares, IN after 24,600 shares, IO after 24,700
 shares, IP after 24,800 shares, IQ after 24,900
 shares, IR after 25,000 shares, IS after 25,100
 shares, IT after 25,200 shares, IU after 25,300
 shares, IV after 25,400 shares, IW after 25,500
 shares, IX after 25,600 shares, IY after 25,700
 shares, IZ after 25,800 shares, JA after 25,900
 shares, JB after 26,000 shares, JC after 26,100
 shares, JD after 26,200 shares, JE after 26,300
 shares, JF after 26,400 shares, JG after 26,500
 shares, JH after 26,600 shares, JI after 26,700
 shares, JJ after 26,800 shares, JK after 26,900
 shares, JL after 27,000 shares, JM after 27,100
 shares, JN after 27,200 shares, JO after 27,300
 shares, JP after 27,400 shares, JQ after 27,500
 shares, JR after 27,600 shares, JS after 27,700
 shares, JT after 27,800 shares, JU after 27,900
 shares, JV after 28,000 shares, JW after 28,100
 shares, JX after 28,200 shares, JY after 28,300
 shares, JZ after 28,400 shares, KA after 28,500
 shares, KB after 28,600 shares, KC after 28,700
 shares, KD after 28,800 shares, KE after 28,900
 shares, KF after 29,000 shares, KG after 29,100
 shares, KH after 29,200 shares, KI after 29,300
 shares, KJ after 29,400 shares, KK after 29,500
 shares, KL after 29,600 shares, KM after 29,700
 shares, KN after 29,800 shares, KO after 29,900
 shares, KP after 30,000 shares, KQ after 30,100
 shares, KR after 30,200 shares, KS after 30,300
 shares, KT after 30,400 shares, KU after 30,500
 shares

Heile Montague	1.550	+ 30	-	-
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SWITZERLAND •				
	Price Lire	+ or -	Div. Lire	Ytd. %
Aluminium.....	1,265		b	3.3
180° A.....	1,635	+ 10	10	3.0
180° B.....	1,550	0	22	1.9
Alum. Part. C.....	1,400	0	32	6.6
Alum. Part. D.....	1,450	+ 4	22	3.7
Alum. Part. E.....	3,175		180	36.6
Alum. Part. F.....	3,065	0	32	6.6
Alum. Part. G.....	645	- 5	5	5.8
Alum. Part. H.....	75,300	500	350	0.7
Alum. Part. I.....	7,475	75	36	1.5
Alum. Part. J.....	5,500	0	32	6.6
Alum. Part. K.....	1,430	5	21	1.5
Alum. Part. L.....	1,430	- 5	21	1.5
Alum. Part. M.....	1,430	0	21	1.5
Alum. Part. N.....	1,430	0	21	1.5
Alum. Part. O.....	1,430	0	21	1.5
Alum. Part. P.....	1,430	0	21	1.5
Alum. Part. Q.....	1,430	0	21	1.5
Alum. Part. R.....	1,430	0	21	1.5
Alum. Part. S.....	1,430	0	21	1.5
Alum. Part. T.....	1,430	0	21	1.5
Alum. Part. U.....	1,430	0	21	1.5
Alum. Part. V.....	1,430	0	21	1.5
Alum. Part. W.....	1,430	0	21	1.5
Alum. Part. X.....	1,430	0	21	1.5
Alum. Part. Y.....	1,430	0	21	1.5
Alum. Part. Z.....	1,430	0	21	1.5
Alum. Part. AA.....	1,430	0	21	1.5
Alum. Part. AB.....	1,430	0	21	1.5
Alum. Part. AC.....	1,430	0	21	1.5
Alum. Part. AD.....	1,430	0	21	1.5
Alum. Part. AE.....	1,430	0	21	1.5
Alum. Part. AF.....	1,430	0	21	1.5
Alum. Part. AG.....	1,430	0	21	1.5
Alum. Part. AH.....	1,430	0	21	1.5
Alum. Part. AI.....	1,430	0	21	1.5
Alum. Part. AJ.....	1,430	0	21	1.5
Alum. Part. AK.....	1,430	0	21	1.5
Alum. Part. AL.....	1,430	0	21	1.5
Alum. Part. AM.....	1,430	0	21	1.5
Alum. Part. AN.....	1,430	0	21	1.5
Alum. Part. AO.....	1,430	0	21	1.5
Alum. Part. AP.....	1,430	0	21	1.5
Alum. Part. AQ.....	1,430	0	21	1.5
Alum. Part. AR.....	1,430	0	21	1.5
Alum. Part. AS.....	1,430	0	21	1.5
Alum. Part. AT.....	1,430	0	21	1.5
Alum. Part. AU.....	1,430	0	21	1.5
Alum. Part. AV.....	1,430	0	21	1.5
Alum. Part. AW.....	1,430	0	21	1.5
Alum. Part. AX.....	1,430	0	21	1.5
Alum. Part. AY.....	1,430	0	21	1.5
Alum. Part. AZ.....	1,430	0	21	1.5
Alum. Part. BA.....	1,430	0	21	1.5
Alum. Part. BB.....	1,430	0	21	1.5
Alum. Part. BC.....	1,430	0	21	1.5
Alum. Part. BD.....	1,430	0	21	1.5
Alum. Part. BE.....	1,430	0	21	1.5
Alum. Part. BF.....	1,430	0	21	1.5
Alum. Part. BG.....	1,430	0	21	1.5
Alum. Part. BH.....	1,430	0	21	1.5
Alum. Part. BI.....	1,430	0	21	1.5
Alum. Part. BJ.....	1,430	0	21	1.5
Alum. Part. BK.....	1,430	0	21	1.5
Alum. Part. BL.....	1,430	0	21	1.5
Alum. Part. BM.....	1,430	0	21	1.5
Alum. Part. BN.....	1,430	0	21	1.5
Alum. Part. BO.....	1,430	0	21	1.5
Alum. Part. BP.....	1,430	0	21	1.5
Alum. Part. BQ.....	1,430	0	21	1.5
Alum. Part. BR.....	1,430	0	21	1.5
Alum. Part. BS.....	1,430	0	21	1.5
Alum. Part. BT.....	1,430	0	21	1.5</

me, June	1940	Since comp
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	June 9	June 2	May 26	Year ago (approx)
Ind. div. yield %	5.43	5.50	5.39	4.81

STANDARD AND POORE'S

	1978	Since Comp
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N.Y.S.E. ALL COMMON						Rises and Falls			
						June 15	June 12	June 9	June 8
1978									
June 15	June 12	June 9	June 8	High	Low	Issues traded	1,806	1,912	
						Rises	629	620	
						Falls	856	855	

Unchanged	422	437
New Highs	72	127
New Lows	53	36

	Gold	275.3	276.3	276.5	276.6	276.7 (12)	282.0 (20)
Industrial		227.9	228.0	228.5	229.1	227.9 (13.6)	184.5 (12)
	June 15	Previous	1978 High	1978 Low	June 15	Previous	1978 High
Industrial	201.34	199.21	201.34	167.16	200.77	198.34	170.72

Sweden	(a)	367.80	367.15	367.95	367.15
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[illegible]

Gen. A. Oil Texas	200,600	42
Union Carbide	230,400	394

AUSTRALIA			BRAZIL		
June 13	Amt. \$	+ or -	June 13	Price Unit	+ or - Div. Unit
ACMIL (20 cent)	10.69	-	Acidiz. OP	1.05	-0.060.12

Janco Iba	1.25	J.37
Belgo Alameda OP	2.18	0.07

June 13	Price	+ or -	Div.
	Kroner		%
bagged Maize	94	-0.5	9
barley	66	1	
hemp	66	1	

Creditbank	106	-1.5	11
Round	230	-2.5	20

Brook	10.72	-0.01	Chilean American Corp.	5.55	+0.01
ICI Australia	12.58	-0.05	Clarke Consolidated	12.50	-0.01
Inter-Copper	10.28		East Orient Corp.	12.50	-0.01
Jeanings Industries	13.54	+0.02	Edgars	17.50	-0.01
Jones (David)	11.22		Harmony	5.45	
Leasam Oil	10.85	-0.05	Kintross	15.65	+0.01
Metals Exploration	10.35		Kino	1.50	-0.01
NIM Holdings	23.33	+0.01	Rustenburg Platinum	8.37	-0.01

St. Helena	13.50	-0.
Southvan	17.83	+0.
Gold Field	21.00	

Superior Mining	10.84		Weakens	4.49	+4
Supreme Exploration	10.58	+0.41			
Swich (8)	11.89	-0.02	West. Driftminers	37.00	-8
Western Exploration	10.94	-0.06	Western Holdings	38.00	-4
Western Mining (20 cents)	11.59		Western Deep	13.40	+4
Worldwide	11.53	+0.04			
			INDUSTRIALS		
			AECI	2.73	+4
			Anglo-Amer. Industrial	4.50	-4
			Barlows Rand	3.73	+4

PARIS	
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Currie Finance	8.68	+0.11
De Beers Industrial	10.00	+0.00

Chaffin	1,890	-10	76.4	47	NetBank	2.70	+18
U.G.E.	366	-1	51.5	8.6	PK Beans	2.50	
C.I. Arate	1,107	-15	76.90	6.9	Premier Midline	5.40	+14
Ch. Bensane	3,248	-1.8	1.8	3.7	Pretoria Cement	32.90	+14
Ch. Gellie	4,075	-1.5	11.25	2.8	Price Holdings	1.25	+14
Ch. K. K. K.	180	-10	18	10.0	Price Properties	1.75	+14
Ch. K. K. K.	79.1	+0.1			Rebranding Group	4.50	+14
Dunes	780	+7	33.75	4.3	Rebranding Group	4.50	
E. P. P.	138		14.10	0.3	Rebranding Group	11.40	

SAPPI	71.90	+8
G. Smith Sugar	25.75	-0.5

Machine	81.2	-0.4	7.5	8.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Sanco General	200
Sanco Granada (1,000)	155
Sanco Blacano	220

[illegible]

1954 - (1,000) 23
at - Prebudas 25

... ..	81	-1	4.8	7.8	Sovgas	125	-
... ..	132		9.8	8.2	Technica	88	- 0.5
... ..	71		5.5	7.0	Texas School	97	- 0.2
... ..	50	-0.5	5		Tubacex	100.50	+ 0.5
... ..	69	+1	6	8.5	Union Elec.	74	- 0.7

5311 ✓

OFFSHORE AND OVERSEAS FUNDS

[illegible]

the 1990s, the number of people in the United States who are 65 years of age or older is projected to increase from 20 million to 30 million, and the number of people 75 years of age or older is projected to increase from 10 million to 15 million (U.S. Census Bureau, 1996).

Bank of Baroda announce that, for balances in their books on and after 13th June, 1978, and until further notice their Base Rate for lending is 10% per annum. The deposit rate on all monies subject to seven days notice of withdrawal is 6½% per annum.

INV. TRUSTS—Continued[illegible]

MINES—Continued

AUSTRALIAN

AUSTRALIAN

TINS
[Amal Nigeria ... | 25 |]

TINS
[Amal Nigeria ... | 25 |]

COPPER
Messina R0.50 — 96 -2

COPPER
Messina R0.50 — 96 -2

NOTES

NOTES

High and Low marked thus have been
rights issues for cash

High and Low marked thus have been
rights issues for cash

over allows for conversion of shares
dividends or ranking only for restrict
does not allow for shares which

over allows for conversion of shares
dividends or ranking only for restrict
does not allow for shares which

previous year's earnings v Tax free
held allows for currency clause. y
d on merger terms. z Dividend a

previous year's earnings v Tax free
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REGIONAL MA

REGIONAL MA

nday Pkg. Sp.	54	Concrete
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Industrials I.C.I. I.C.I. International Chemicals

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Rebels, Inc.	15	Midland Bank
Distillers	7	N.E.I.
Dynlop	11	Not West Bank

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Inflation 'could delay economic recovery'

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

A STERN warning about the risks of a rekindling of inflation, the same time maintaining a firm monetary posture.

He was convinced that high marginal rates of tax and levels of government expenditure had "dulled incentives and loaded heavy burdens on the productive machine in many countries."

The main emphasis in the speech was on inflation and the fear of its resurgence, which remains a "powerful constraint on both public and private confidence and expansionism."

The Governor said that apprehension about inflation was misplaced. "The prospects in a number of countries seem to be for some increase in inflation rates."

He also highlighted the change in thinking about floating exchange rates.

"Whereas we once thought that exchange rate changes had an important contribution to make to the (balance of payments) adjustment process, we are now not so sure."

He noted that substantial changes in exchange rates now fed through to costs and prices more quickly than before.

"It is perhaps not too much to say that exchange rate movements in recent years have contributed to a polarisation of economies—tending to make the strong stronger and to weaken the weak."

Mr. Richardson identified inflation, the recession, and continuing maladjustment of balance of payments and exchange rate volatility as causes of concern.

He said it was difficult not to feel that the present scale of our waste of resources implies considerable risks for the medium-term, notably languishing of productive investment.

The Governor also gave strong backing to the operations of the International Monetary Fund as the most appropriate multilateral channel for provision of official finance and application of judicious economic policy conditions.

This should be in parallel with financing arranged by the banks, he said.

He urged a change of sentiment to encourage a greater use of the fund's conditional facilities by deficit countries.

"Not only is it in many cases, in the direct interest of a country to accept a sound economic programme worked out with the assistance of the IMF, but also the adoption of such a programme can unlock further amounts of banking and other commercial finance which otherwise might prudently be withheld."

Mr. Richardson said the fund's supplementary finance facility (the Whitehead facility) could provide an important complement here.

There is still scope for increases in bilateral capital flows—both of official capital and private direct investment—particularly from some major surplus countries to the developing countries.

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Zaire accepts Western plan to curb imports

BY GUY DE JONQUIERES, COMMON MARKET CORRESPONDENT

BRUSSELS, June 13.

ZAIRE today agreed, under pressure from its principal Western creditors, to impose a strict new import licensing system and place its public finances under the supervision of outside experts as a first step towards re-ordering its troubled economy.

The measures were endorsed on the first day of a two-day meeting here between Zaire and almost a dozen other governments to discuss the country's mounting difficulty in servicing its external debt, estimated at about \$2.3bn.

The talks sponsored by Belgium also include officials from the International Monetary Fund, the World Bank and the EEC Commission.

Officially, the proposal to impose tighter controls over the running of the Zaire economy is being attributed to the regime of President Mobutu Sese Seko.

But other sources here are unwilling to give any further aid unless they receive firm assurances that it will be properly spent.

Zaire is in the midst of negotiating a new credit arrangement with the IMF which is expected to form the backbone of a new aid package.

Its Government is also seeking emergency aid to restore the economy caused by the recent insubordination of the province, as well as substantial new foreign investment.

It has asked for new long-term investment from external sources of about \$1bn (\$544m), half of it for transport sector. The remainder is required for agriculture, energy, education, telecommunications and mining.

It has been agreed that an IMF nominee, assisted by a staff of about six outside experts will take over as principal director of the Zaire Central Bank from mid-August. He will have wide authority over the operation of the country's credit and payments mechanisms.

Zaire has also consented to the appointment of another outside official as principal controller of its finance ministry, with special responsibility for public spending, budgetary receipts and the running of public sector enterprises.

It is not yet known whether he will be supplied by the IMF or from one of the creditor Governments.

The import licensing scheme, which is expected to take effect as soon as possible, is considered a vital step towards staunching the heavy drain on the country's depleted foreign exchange reserves, and ensuring that future imports are economically justified.

Zaire's creditors consider it equally important that management of the country's internal financial affairs should ensure that money is spent on the purposes for which it is officially intended, and not misused for private gain as has often been the case in the past.

Zaire has presented its creditors with a four-point programme for stabilising its economy and increasing production, particularly in the mining sector which has been badly affected by the recent fighting in Shaba. Belgium believes that the country should aim at restoring output to 1973 levels.

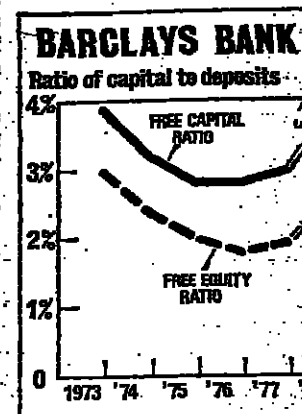
The other Government representatives at today's meeting were U.S., Britain, France, West Germany, Italy, the Netherlands, Japan, Canada and Iran. Saudi Arabia has been invited to the meeting but did not send a representative today.

Castro blames Brezinski, Page 4

THE LEX COLUMN

The hidden cost for Barclays

Index rose 2.4 to 474.6



The lull since two major investment trusts were taken over by pension funds last year was broken yesterday when Barclays Bank emerged as the intermediary in an ingenious scheme for the Post Office Staff Superannuation Fund to acquire the Investment Trust Corporation. Barclays, which unlike the fund can issue paper, is making an agreed share exchange offer on the basis of 88 Barclays units for 100 ITC, terms which are worth 25p per ITC share. The overall value placed on the trust, with Barclays at 335p, is around £93m. When the deal goes through the bank will pass on the trust to the Post Office fund for some £85m in cash, or 26p a share—representing a discount of 101 per cent.

The advantages of this arrangement are, first, that the trust gets an offer which, even on the basis of the 26p a share underwritten cash alternative, comes out slightly above the net asset value. This is stated to be 261p after deducting prior charges at redemption value and taking off 14p a share of contingent capital gains tax. The share offer is in fact currently worth even more than the full going concern value, a price which a pension fund could not possibly afford to pay directly.

Secondly, the pension fund avoids all the publicity and unpleasantness of a contested offer which was endured by the British Rail and Coal Board funds in buying Edinburgh and Dundee and British Investment Trust, respectively. It pays hardly more than those institutions, and avoids the risk of being stuck with an awkward minority as the Coal Board fund has been. Moreover, it has been able to pour over the portfolio in advance, a privilege not available in a contested situation.

Finally, Barclays has been able to raise a useful sum—enough to improve its capital to deposit ratios by around 0.4 of a percentage point—without launching a conventional rights issue; the move is equivalent to a one-for-seven at around 200p. Apparently the scheme was devised by Samuel Montagu, and offered to Barclays several months ago as the first on a list of potential capital raisers. Barclays accepted, reasoning that although the scheme was more hit-or-miss than a rights issue the need for new capital was not urgent and meantime the trust route could produce capital at only about half the discount involved in a rights issue.

At this point, however, the reasoning gets fuzzy. A discount of 10 per cent, given away to outsiders is not at all to be compared with even a 20 per cent discount offered to existing shareholders in a rights issue. Quite clearly, the reason why this scheme is attractive to the others concerned is that Barclays' shareholders are effectively tossing a useful bonus of around £10m into the Johnnie Matthey kitty.

Barclays is also blurring over the purpose of the deal, said 1976-77 Johnson Matthey ended to be to raise funds to use in the "further expansion of the pre-tax profits 10 per cent lower business." In the past four years at £18.9m. At first the group group deposits have declined by 5 per cent after adjustment for when it reported 17 per cent inflation. Shareholders' should growth in first quarter profits, note the recent evidence of the London Clearing Bankers to the series of five quarters of declining profit growth rates. The group's normally quiet second quarter has been. Moreover it has been evidence... that the banks have turned in unchanged figures, but able to pour over the portfolio had to turn to the capital the third resulted in a 32 per cent decline. At least the fourth quarter is better than this, with profits only 21 per cent lower.

Pegler-Hattersley

Serck told, the story last month, and now Pegler-Hattersley confirms it: the UK valve industry is having a very rough time. Pegler's profits for the year to April are down from £18.2m to £12.6m pre-tax; the main reason is that the world market in steel valves—because this division incorporates what takes nearly a fifth of sales—has nosedived. Two years ago, Pegler's trading profits amounted to £10.5m, of which something like a third might have come from steel a p.p. of 8.2 while the yield is valves. Now, trading profits are lower than the market average down to £6.7m, and the returns at 4.8 per cent.

Thorn to market Japanese video tape recorders

BY CHARLES SMITH

TOKYO, June 13.

JAPAN VICTOR has reached agreement with the Thorn group to supply 20,000 video tape recorders a year to be marketed by Thorn in the UK under its own brand name.

The agreement includes a clause on the supply of information which will enable Thorn to start assembling recorders after two years and, at a later stage, to embark on full-scale manufacture.

The agreement is similar to arrangements made by Victor with European electronics manufacturers, including the French Thomson group.

It is the first phase of the marketing tie-up between a Japanese videocassette manufacturer and the British company, although Japanese electronics companies—including Victor—are making direct exports of videocassette recorders to the UK.

Victor was not willing today to speculate on the price at which the Thorn video taperecorders will be sold in Britain, but says that its own sets are being sold at about £750 each.

Victor is aiming for direct export to the British market of 30,000 units a year, in addition to the 20,000 units which will be supplied to Thorn. It expects its total western European sales to reach 110,000 units a year.

The industry generally is expecting prices to fall by perhaps 20 per cent as the volume of sales increases.

Sets adapted

Japan Victor was the pioneer of the video home system of video tape recording, which is in competition with the Beta Format system developed by Sony. Members of the Beta Format group, including Sony itself, are also exporting to Europe, but appear to have made a later start than Victor and, so far, to be shipping smaller quantities of sets.

Both groups had to adapt their sets to receive the PAL system of colour broadcasting used in the UK and West Germany before they could enter the European market.

Japan Victor says that its arrangements for entering the European markets are complete with the signature of the Thorn agreement.

Max Wilkinson writes: The Sony and the Victor systems will be in competition with a third system being marketed by Philips of Holland. The Philips system, which was first in the field, is less economical in the use of tape than its Japanese competitors, but is claimed by Philips to produce a better quality of picture.

Tapes recorded on any of the three systems cannot be played back on rival equipment.

Philips is believed to be talking with Sony and Matsushita about the possibility of standardising designs.

Last Israeli troops pull out of Lebanon

BY DAVID LENNON

South Lebanon, June 13.

ISRAEL TODAY withdrew the last of its troops from Southern Lebanon, three months after they invaded the area in an attempt to smash the Palestinian guerrillas.

As the army left, Israel warned the UN that it was not giving up its intention to "monitor the situation" and to protect the Christian minority against Palestinian attacks.

The Israeli positions within the 10-kilometre-deep belt along the border were handed over to the Lebanese militia, the Christian Right-wing. Israel refused to give its positions over to the UN peace-keeping troops, with whom relations appear to be strained.

The formal handover ceremony was staged at the Shia Muslim village of Mis el Jebel close to the Israeli border-town of Kiryat Shmoneh and midway between the two main Christian enclaves in Southern Lebanon.

According to the Security Council resolution establishing the UN Truce Supervision Force in Lebanon, all the area occupied by Israel in March should have been taken over by UN troops.

In earlier stages of the withdrawal, Israel gave up its positions to the UN troops; but this time it insisted on handing them over to the Christians, who have been backed by Israel during its two-year battle against the Palestinian and Muslim forces.

Major Saad Haddad, the commander of the Christian militia, said that his force was strong enough to control the entire border area.

He said that an agreement had been reached last night with the UN concerning the movement of UNIFIL troops in the area under his control. He would not give any details of the arrangement, but it implied UN recognition of the law-enforcement role of the Christian militia.

Anthony McDermott adds: Whether there has been some agreement between UNIFIL and Major Haddad's militia or not, the latter's forces acting as a surrogate protectors of Israel's interests means that tension in the south is bound to continue.

Unhappy

For example, President Sarkis is keen—with the agreement of President Assad of Syria, whose troops make up all but a fraction of the Arab Deterrent Force in Lebanon—to establish control of the central government through his own small and newly reformed army in the area.

The Palestinians and Left-wing forces continue to be unhappy at the role Major Haddad is playing. As a result all the elements for another outbreak of clashes remain.

In heavy fighting between the Christian militia in the northern Lebanese town of Ehdun about 40 people were killed. Among them were Mr. Tony Franjich, a deputy and the son of the former Lebanese President Suleiman Franjich, and his family. The fighting reflects tensions between former members of a Right-wing coalition known as the Lebanese Front.

Leyland pins hopes on incentives plan

BY TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

PLANS FOR a new productivity day-work system, but will incentive scheme at British Leyland are being pushed ahead by Mr. Michael Edwards, the chairman, in an urgent attempt to raise the car division's flagging output levels.

He told shareholders at the annual meeting in London yesterday that an incentive scheme could transform Leyland's precarious position. "It is crucial to the survival of the company that a productivity incentive scheme is agreed very quickly for cars as it has been for SP Industries (Leyland's engineering interests) and Leyland Vehicles," he said.

Mr. Edwards' warning comes after a five-month period in which Leyland met its sales and profits targets. But he stressed that the group managed to achieve this performance only because of the March Superdeal sales promotion.

"If we could repeat March in terms of sales and profits we would be out of the woods financially. But the fact is that our production levels do not enable us to approach the March volumes."

Although Leyland would give no official figures yesterday, Mr. Edwards went on to admit that the chances of meeting its production target of 819,000 cars this year looked slim. It is believed that output is running at about 75 per cent of what the company is aiming for, following some improvement at the beginning of this year.

Leyland's first attempt at a productivity scheme for the cars division was thrown out after a ballot of the workforce two months ago. While management wanted a centralised system giving control over total earnings, the trade unions were pressing for payments closely related to individual efforts.

The company is expected to put forward proposals for its revised scheme next week. It is also likely to retain a large standard element of payment related to the present measured day-work system, but will incentive scheme at British Leyland are being pushed ahead by Mr. Michael Edwards, the chairman, in an urgent attempt to raise the car division's flagging output levels.

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Commission to study prices of car spares

By Elinor Goodman, Consumer Affairs Correspondent

THE PRICE COMMISSION will examine the prices of spare parts for cars. The reference was one of three announced by Mr. Roy Hattersley, the Prices Secretary, yesterday.

The investigation will cover all the companies in the industry, including the car makers. It could result in long-term recommendations about prices.

The reference seems to have been prompted by complaints about the high prices charged for spares and the differences between the prices paid by vehicle manufacturers and those paid by motorists.

Margins are traditionally high on spares despite the increasing competition between motor manufacturers and the specialist component manufacturers. Leyland's component division is one of the car company's divisions which consistently makes money.

The commission has also been asked to look at the prices of portable power tools, of the kind made by such companies as Black and Decker, and the distribution of jeans.

Capital gains tax talks

By Ivor Owen, Parliamentary Staff

MR. JOEL BARNETT, Chief Secretary to the Treasury, to have consultations with Tory MPs and their tax legislation advisers as part of a general review of capital gains tax procedures.

He announced his willingness to go beyond the normal consultative process last night during further debate on the Finance Bill in a House of Commons standing committee. He emphasised that he was not making any advance commitment to amend the Bill.

Continued from Page 1 ICI warning

dozen people starting in January this year. By that time, says the company, it had lost far more artificers.

The company says that union demand for higher pay for these grades of normal workers cannot be met because pay and conditions for weekly staff are governed by national agreements and it has made the maximum wage offer within pay guidelines.

All the company's manual workers have been made a 10 per cent offer, together with a continuation of the existing productivity scheme in a deal due to run from the beginning of this month.

ICI has offered job restructuring which would include some upgrading of fitters, electricians and artificers but the unions rejected this.

Continued from Page 1 Post Office pension fund

under pressure to raise new capital but the approach by the pension fund had offered a vice-chairman of Barclays, said beneficial way of bringing in new funds.

The effect will be that the bank will issue new shares at a discount of only some 10.5 per cent from their current market value.

When Midland Bank made its £96m rights issue earlier this year, the shares were issued at a price nearly 47 per cent below

the market level before the issue was announced.

The deal will, in effect, be equivalent to a rights issue on the basis of around one new share for seven. It will raise the bank's free capital ratio to deposits from 2.65 per cent to just under 3 per cent.

At the same time, Barclays announced that it plans to raise its dividend in total by 20 per cent this year with an interim payment of 6.05p a share and a final of not less than 7.2089p.

Weather

UK TODAY

MOSTLY dry, but showers in the E.

London, S. N. England, Midlands, S. Wales, Channel
 Dry, sunny intervals. Max. 17-19C (63-66F).

E. Anglia, E., N.E. England
 Cloudy, scattered showers. Max. 15C (59F).

N. Wales, N.W. England, Lakes, L. of Man
 Dry, sunny. Max. 17-19C (63-66F).

Borders, Edinburgh, Dundee, Aberdeen, Glasgow, Argyll, Moray Firth, Cent. Highlands, W. N. Scotland, Orkney, Shetland
 Dry, sunny intervals. Max. 13-16C (55-61F).

Pollen count: 25, low.

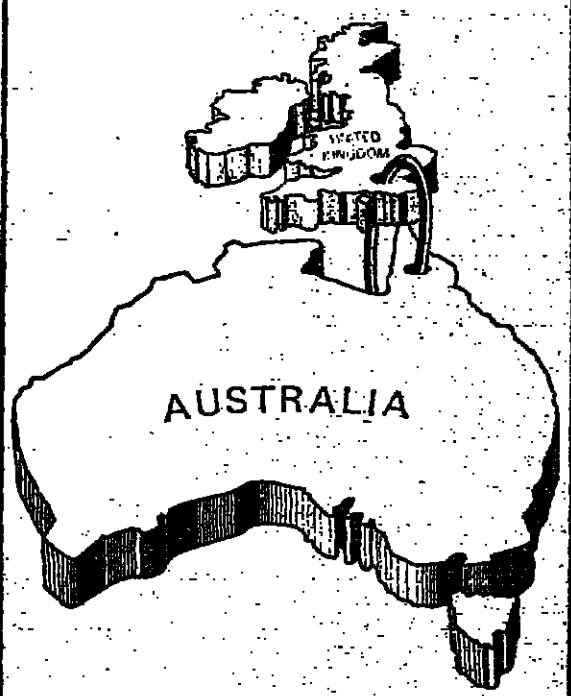
Outlook: Sunny periods, thunder showers.

BUSINESS CENTRES

	Y'day	Today	Y'day	Today	
	C 12	C 12	C 12	C 12	
Alexandria	S 26	29	Luzern	C 12	15
Amsterdam	C 12	14	Madrid	C 25	27
Antwerp	C 12	14	Manchester	C 12	14
Bahrain	C 12	14	Melbourne	C 12	14
Barcelona	C 12	14	Milan	C 16	18
Bombay	C 12	14	Montreal	C 16	18
Buenos Aires	C 12	14	Moscow	C 16	18
Calcutta	C 12	14	Mumbai	C 16	18
Canton	C 12	14	New York	C 13	15
Cebu	C 12	14	Newcastle	C 13	15
Colon	C 12	14	Ottawa	C 13	15
Hankow	C 12	14	Paris	C 13	15
Hong Kong	C 12	14	Perth	C 13	15
Kobe	C 12	14	Port of Spain	C 13	15
Kuala Lumpur	C 12	14	Rangoon	C 13	15
London	C 12	14	Reykjavik	C 13	15
Lyons	C 12	14	Rio de Janeiro	C 13	15
Manila	C 12	14	Sao Paulo	C 13	15
Medan	C 12	14	Seoul	C 13	15
Osaka	C 12	14	Singapore	C 13	15
Shanghai	C 12	14	Stockholm	C 13	15
Singapore	C 12	14	Taipei	C 13	15
Sourabaya	C 12	14	Tokyo	C 13	15
Tientsin	C 12	14	Winnipeg	C 13	15
Yokohama	C 12	14	Zurich	C 13	15

HOLIDAY RESORTS

	Y'day	Today		Y'day	Today
	midday	°C °F		midday	°C °F
Algeria	F 23	24	Island	F 23	24
Argentina	F 23	24	Jersey	F 23	24
Australia	S 23	24	Las Vegas	F 23	24
Bahamas	F 23	24	Lima	F 23	24
Bahrein	F 23	24	Locarno	S 23	24
Bangladesh	C 23	24	London	S 23	24
Belize	C 23	24	Madrid	S 23	24
Bermuda	C 23	24	Melbourne	S 23	24
Bhutan	C 21	70	Melaga	S 23	24
Bolivia	C 21	70	Malta	S 23	24
Bosnia	C 21	70	Moscow	S 23	24
Brazil	C 21	70	Mumbai	S 23	24
Bulgaria	C 21	70	New York	S 23	24
Cameroon	C 20	68	Newcastle	S 23	24
Canada	C 20	68	Nice	S 23	24
Cape Verde	C 20	68	Porto	S 23	24
Chad	C 20	68	Salzburg	S 23	24
China	C 20	68	Taipei	S 23	24
Cyprus	C 20	68	Trinidad	S 23	24
Czechoslovakia	C 20	68	Winnipeg	S 23	24
Dominican	C 18	63	Zurich	S 23	24
Dominica	C 18	63			
DRC	C 18	63			
Ecuador	C 18	63			
El Salvador	C 18	63			
Equatorial Guinea	C 18	63			
Ethiopia	C 18	63			
France	C 18	63			
Germany	C 18	63			
Ghana	C 18	63			
Greece	C 18	63			
Haiti	C 18	63			
Honduras	C 18	63			
Hungary	C 18	63			
Iceland	C 18	63			
India	C 18	63			
Indonesia	C 18	63			
Iran	C 18	63			
Ireland	C 18	63			
Israel	C 18	63			
Italy	C 18	63			
Jamaica	C 18	63			
Japan	C 18	63			
Jordan	C 18	63			
Kazakhstan	C 18	63			
Kenya	C 18	63			
Korea	C 18	63			
Kuwait	C 18	63			
Laos	C 18	63			
Latvia	C 18	63			
Lebanon	C 18	63			
Lesotho	C 18	63			
Lithuania	C 18	63			
Madagascar	C 18	63			
Malawi	C 18	63			
Malaysia	C 18	63			
Maldives	C 18	63			
Mali	C 18	63			
Malta	C 18	63			
Mexico	C 18	63			
Moldova	C 18	63			
Mongolia	C 18	63			
Montenegro	C 18	63			
Morocco	C 18	63			
Mozambique	C 18	63			
Nepal	C 18	63			
Netherlands	C 18	63			
New Zealand	C 18	63			
Nicaragua	C 18	63			
Niger	C 18	63			
Nigeria	C 18	63			
North Macedonia	C 18	63			
Oman	C 18	63			
Pakistan	C 18	63			
Panama	C 18	63			
Paraguay	C 18	63			
Peru	C 18	63			
Philippines	C 18	63			
Poland	C 18	63			
Portugal	C 18	63			
Romania	C 18	63			
Russia	C 18	63			
Saudi Arabia	C 18	63			
Senegal	C 18	63			
Serbia	C 18	63			
Singapore	C 18	63			
Slovakia	C 18	63			
Slovenia	C 18	63			
South Africa	C 18	63			
Spain	C 18	63			
Sri Lanka	C 18	63			
Sweden	C 18	63			
Switzerland	C 18	63			
Taiwan	C 18	63			
Tanzania	C 18	63			
Thailand	C 18	63			
Togo	C 18	63			
Tonga	C 18	63			
Trinidad	C 18	63			
Tunisia	C 18	63			
Turkey	C 18	63			
Turkmenistan	C 18	63			
Uganda	C 18	63			
Ukraine	C 18	63			
United Arab Emirates	C 18	63			
United Kingdom	C 18	63			
United States	C 18	63			
Uruguay	C 18	63			
Uzbekistan	C 18	63			
Venezuela	C 18	63			
Vietnam	C 18	63			
Yemen	C 18	63			
Zambia	C 18	63			
Zimbabwe	C 18	63			



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